THE JOURNAL

OF THE

Michigan State Medical Society

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DEPARTMENT OF SOCIETY ACTIVITY

ARTICLE 2—PURPOSE

Section 1. The purposes of this Society are to promote the science and art of medicine, the protection of public health and the betterment of the Medical Profession; and to unite with similar organizations in other States and Territories of the United States to form the American Medical Association.

SECRETARY'S VALEDICTORY

The following communication was sent to the Council on July 28, 1934, thereby terminating a service of twenty-one and one-half years as Secretary of this Society.

B. R. Corbus, M.D., Chairman,
Council of the Michigan State Medical Society,
Grand Rapids, Michigan.

Dear Doctor Corbus:

I hereby respectfully tender to you and through you to the Council my resignation as Secretary of the Michigan State Medical Society, effective September 15, 1934.

I shall arrange for an audit of the Society's funds and shall be prepared to transfer the funds and all society records on that date to whomsoever the Council designates.

It is not easy to terminate a relationship and relinquish an office that I have served for twenty-two years. I admit feelings mingled with regret and sadness. Fortune's vagaries leave me with no other course to pursue.

I am very grateful and very sincerely appreciative for the confidence and trust reposed in me during these many years. In another communication I shall endeavor to express my gratitude in fuller measure.

Awaiting the Council's instructions and assuring you I shall be helpful to my successor, I am,

Very respectfully,

F. C. WARNSHUIS, *Secretary.*

This was not an easy step to take. A residency and practice in Michigan extending over a period of thirty-two years yielded many friendships and created many relationships that were dearly prized. To sever them and remove oneself from Michigan's environment gives rise to indescribable emotions. The decision was brought about by the attractive tender from the California Medical Association.

In relinquishing office I desire to express my very sincere appreciation for the trust that was reposed in me during these many years. My quest was not to serve one member, or a small group of members, but the entire membership—the Society as a whole.

The faithful discharge of the duties of office received first consideration. My quest at all times was to conserve and advance the membership and Society's interests. The records reveal the degree in which that policy was successful.

The citing of achievements and major activities might be justified, I shall leave such narration to others. There is one plea I should like to leave: Remain loyal to your organization, and maintain sustained interest in and support all of the Society's activities. It is your Society and it will be as valuable to you as you make it.

For my successor I bespeak wholehearted coöperating support. Few realize the tremendous amount of detail, labor and energy that the duties of office demand. Few appreciate the work involved or the time demands that devolve upon the Secretary.

Members should recognize these facts.

My successor will stand in need of your helpful and considerate assistance, for during the next year his duties are going to be extremely arduous.

I shall maintain a kindly interest in the Society's future. Its future and its activities will receive my best wishes and so—Good-bye.

F. C. Warnshuis.

ANNUAL MEETING

The program for the annual meeting in Battle Creek, September 11 to 13, will be found in this issue. Members will undoubtedly agree that this program will create a desire to attend. The two days of scientific addresses will be very instructive and profitable to every doctor. The guest speakers are outstanding in their special fields of medicine.

All sessions will be held in the W. K. Kellogg Auditorium. This building is conveniently located near the two leading hotels. The Scientific and Commercial Exhibits will be of exceptional interest.

Delegates are requested to secure their credentials from their county secretary and present them to the Credentials Committee at 9:00 a. m. on the morning of September 11.

The Calhoun County profession have planned several entertainments and are eager to accord you their hospitality.

Turn to the program, note the dates, write for your hotel reservations and plan to attend.

POST-GRADUATE OPPORTUNITIES

Our Society has been a pioneer in providing opportunities for postgraduate work for our members in their own state. There has been a constant expansion of the program. The quest has been to meet the wishes of our members. It is in conformity to that policy that the following announcement is made of further expansion.

Members are urged to embrace this new offering.

Announcement

In order to provide more convenient opportunities for a high type of postgraduate study for the practitioner of general medicine, the following plan for intensive courses in medicine, surgery and their branches has been arranged through the establishment of three additional teaching centers.

In each of these three centers—Flint, Grand Rapids, and Battle Creek-Kalamazoo, jointly, a course of instruction of one day (five hours) each week for eleven weeks is provided beginning the first week in October. Case presentations and didactic teaching will occupy the hours 10:00 to 12:00 in the morning, and 1:00 to 3:00 in the afternoon. Following the afternoon period an hour will be devoted to general discussions. The early part of the discussion will be limited to questions raised by the preceding presentations, while the latter part will be devoted to problems of personal interest to any member of the class.

The program is identical for each center, consisting of case demonstration and bedside clinics in traumatic and emergency surgery, fractures, cardiology, metabolic diseases, gynecology and obstetrics, pulmonary disease, gastroenterology and pediatrics.

In order that adequate clinical material may be provided it is important that physicians register at an early date and with the view of being present throughout the entire course of study, giving preference to the particular city in which they wish to be enrolled.

This arrangement offers an opportunity for practical instruction in diagnosis and in the recent advances in each field at a minimum loss of time from practice.

For further information and program in detail, address: Department of Post Graduate Medicine, University Hospital, Ann Arbor, Michigan.

I. Diseases of the Heart and Circulatory System

Morning

10:00 A study of the types of heart disease by case demonstration, with emphasis on the recognition of physical signs, the signs and symptoms of heart failure, and the treatment of various types of heart disease.

12:00 Luncheon.

Afternoon

1:00 Program continued.

3:00 Discussion.

II. Diabetes Mellitus

Morning

10:00 In this period a thorough discussion of the principles of treatment of diabetes mellitus will be given, formulating a practical and interesting method of managing this large group of patients in office practice. The indications for insulin, preparation of the diabetic for surgery, and the complications, including coma, will be stressed.

12:00 Luncheon.

Afternoon

1:00 Program continued.
3:00 Discussion.

III. Gastroenterology

Morning

10:00 Differential Diagnosis and Treatment of Functional and Organic Gastrointestinal Disease.
12:00 Luncheon.

Afternoon

1:00 Diseases of Colon and Ano-rectal Diseases.
3:00 Discussion.

IV. Psychiatry

Morning

10:00 The Importance of the History and Examination of the Psychiatric Patient, the Recognition of the Major Insanities, and their Differentiation from the Psychoneuroses, Anxiety States, Compulsions, Phobias and Hysteria.
12:00 Luncheon.

Afternoon

1:00 Diagnostic Procedures and Laboratory Methods Necessary in the Recognition of Central Nervous System Disease.
3:00 Discussion.

V. Fractures

Morning

10:00 Fractures of the Extremities.
12:00 Luncheon.

Afternoon

1:00 Fractures of Skull and Spine.
3:00 Discussion.

VI. Traumatic and Emergency Surgery

Morning

10:00 Diagnostic Problems of the Acute Abdomen. Infections of the Hand.
12:00 Luncheon.

Afternoon

1:00 Factors of Importance in Estimating Surgical Risk, Pre-operative and Post-operative Care, and Recognition and Treatment of Shock.
3:00 Discussion.

VII. Gynecology and Obstetrics

Morning

10:00 Complications of Pregnancy.
12:00 Luncheon.

Afternoon

1:00 The Cause and Treatment of Amenorrhea, Menorrhagia, Metrorrhagia, and Cancer of Cervix.
3:00 Discussion.

VIII. Pediatrics and Infectious Diseases

Morning

10:00 Infant Feeding.
12:00 Luncheon.

Afternoon

1:00 Contagious Diseases, Complications, and Their Treatment.
3:00 Discussion.

IX. Pulmonary Tuberculosis and Other Thoracic Diseases

Morning

10:00 Differential Diagnosis of Pulmonary Tuberculosis and Non-tuberculous Pulmonary Disease, with the Importance of the X-ray in Diagnosis and in Determining Activity.
12:00 Luncheon.

Afternoon

1:00 Indications for Collapse Therapy with Surgical Procedures.
3:00 Discussion.

X. Syphilology and Dermatology

Morning

10:00 Problems and Methods in the Treatment of Syphilis.
12:00 Luncheon.

Afternoon

1:00 Clinical Demonstration of Dermatological Lesions and Their Treatment.
3:00 Discussion.

XI. Arthritis

Morning

10:00 Differential Diagnosis of Various Types of Arthritis According to Etiology and Pathology, and Various Therapeutic Agents Used in Their Treatment.
12:00 Luncheon.

Afternoon

1:00 Mechanical and Surgical Considerations of Arthritis and Other Deforming Joint Conditions.
3:00 Discussion.

CHANGE OF HEADQUARTERS

The Council has designated Dr. B. R. Corbus as Acting Secretary of the Society.

On and after September 1, 1934, all communications relative to Society business, membership, advertising, etc., should be addressed to

B. R. Corbus, M.D.,
Acting Secretary,
309-11 Metz Bldg.,
Grand Rapids, Mich.

County Secretaries are particularly requested to note this change of address.

On and after October 1 Dr. Warnshuis' address will be Room 2004, 450 Sutter Street, San Francisco, Calif.

ANNOUNCEMENT

On invitation of the Committee on Preventive Medicine, the Michigan Tuberculosis Association, the State Sanitorium, and the State Department of Health are preparing for booth number twenty-two a demonstration of tuberculosis, Schick, and other tests. There will also be on display an exhibit on x-ray pictures demonstrating types of operative collapse of lungs in the treatment of tuberculosis.

MEDICAL ETHICS AND NEW METHODS OF PRACTICE

Gradual changes in the nature of our civilization have brought ever more complex problems for solution by the medical profession. As has been stated repeatedly in these columns, the ethical principles which guide medicine are fundamentally so sound that they may be adapted to any situation arising in medical practice provided those concerned wish to observe the spirit of these principles. Nevertheless, physicians involved in new types of organization, such as contract practice, industrial practice, hospital practice, university practice, and the practice of medicine by lay corporations which employ physicians, have been brought before the judicial councils and committees on ethical relations of various medical bodies, because of infringements of these ethical principles. In some cases there have apparently been difficulties of interpretation. To overcome these difficulties, the Judicial Council of the American Medical Association, at the Cleveland session, presented three amendments to the Principles of Medical Ethics. These were heartily endorsed by the Reference Committee on Amendments to the Constitution and By-Laws and then adopted by the House of Delegates as guiding principles for organized medicine.

The term "contract practice" is anathema to the vast majority of individual practitioners in this country, yet contracts of all kinds are matters of daily life in all forms of industry. Conceivably there are situations in which the practice of medicine under a contract may be necessary or desirable. In order to elucidate this phase of medical practice, the Principles of Medical Ethics, chapter II, article V, section 2, is now amended by addition of the following wording:

> By the term "contract practice" as applied to medicine is meant the carrying out of an agreement between a physician or a group of physicians, as principals or agents, and a corporation, organization or individual, to furnish partial or full medical services to a group or class of individuals for a definite sum or a fixed rate per capita.
>
> Contract practice *per se* is not unethical. However, certain features or conditions if present make a contract unethical, among which are: 1. When there is solicitation of patients, directly or indirectly. 2. When there is underbidding to secure the contract. 3. When the compensation is inadequate to assure good medical service. 4. When there is interference with reasonable competition in a community. 5. When free choice of a physician is prevented. 6. When the conditions of employment make it impossible to render adequate service to the patients. 7. When the contract because of any of its provisions or practical results is contrary to sound public policy.
>
> Each contract should be considered on its own merits and in the light of surrounding conditions. Judgment should not be obscured by immediate, temporary or local results. The decision as to its ethical or unethical nature must be based on the ultimate effect for good or ill on the people as a whole.

Group practice and clinical practice are also phases of medical work that have aroused opposition in many communities, because of the introduction of advertising methods and commercial promotion into their work. In some places groups or clinics have employed business managers, unfamiliar with the medical point of view, who have attempted to introduce unprofessional methods into medical practice. In order to establish the proper relationship between groups and clinics with the individual practice of medicine, the Principles of Medical Ethics will now contain the following statement:

> The ethical principles actuating and governing a group or clinic are exactly the same as those applicable to the individual. As a group or clinic is composed of individual doctors, each of whom, whether employer, employee or partner, is subject to the principles of ethics herein elaborated, the uniting into a business or professional organization does not relieve them either individually or as a group from the obligation they assume when entering the profession.

Regardless, however, of the damage wrought to scientific medicine by physicians who engage in contract practice or by groups of physicians competing with the individual practitioner, the worst possible type of new methods in medical practice is the incorporation by business men of organizations to engage in the practice of medicine, employing physicians on salaries and exploiting the services of these physicians unethically to the public. The most conspicuous example of such an organization is the United Medical Service, Inc., which began a few years ago to advertise its services to the people of Chicago. Regarding such types of medical practice, the Judicial Council was definite. The Principles of Medical Ethics now contains the following statement:

> It is unprofessional for a physician to dispose of his professional attainments or services to any lay body, organization, group or individual, by whatever name called, or however organized, under terms or conditions which permit a direct profit from the fees, salary or compensation received to accrue to the lay body or individual employing him. Such a procedure is beneath the dignity of professional

practice, is unfair competition with the profession at large, is harmful alike to the profession of medicine and the welfare of the people, and is against sound public policy.

As was stated in the introduction to these comments, these modifications of the Principles of Medical Ethics do not in any way modify the basic character of these principles. The Principles of Medical Ethics was established for the protection of the public primarily. Methods of promotion that sell medical practice on the basis of exaggerated claims, on a fee basis rather than the quality of service rendered, methods of practice that break down the intimate personal relationship that must exist between doctor and patient; methods that delegate the responsibility of the attending doctor to a group or a corporation or a business manager, carry with them a menace to the life and health of the people who are served.

Physicians will do well to familiarize themselves with these new statements of principle, now a part of the ethics of organized medicine. The young physician who is tempted by the offer of some commercial agency to enter into such schemes or combinations should bear in mind that he thereby jeopardizes his entire future in the practice of medicine and sacrifices the medical birthright for which he has already paid six or seven years of his life.—*Jour. A. M. A.*

MINUTES OF THE EXECUTIVE COMMITTEE OF THE COUNCIL OF THE MICHIGAN STATE MEDICAL SOCIETY

The Executive Committee of the Council met in Muskegon on August 1, 1934, with the following members present:

Chairman Corbus, Carstens, Boys Baker, Cook, President LeFevre, President-Elect R. R. Smith, Councilor Treynor and Doctors J. B. Bradley and Philip Riley of the Legislative Committee, also Past President Carl Moll and the Secretary.

1. The Secretary reported that he had transmitted the action of the Executive Committee held one month ago, requesting the Economics Committee to have its report in the hands of the Secretary not later than August 10 for printing and distribution to the Delegates at least two weeks before the meeting of the House of Delegates. Councilor Baker, member of the Economics Committee, reported upon the progress that was being made. The Secretary was instructed to place all the facilities of his office at the disposal of this committee to expedite its work.

2. The Secretary presented a communication from Mr. Barbour, Legal Counsel, upon the liabilities of the Society for members who were in arrears with their dues and also for members joining the Society during some portion of the fiscal year. The Secretary was instructed to prepare amendments, incorporating this information in the By-Laws of the Society for presentation to the House of Delegates.

3. The Secretary presented the financial statement of the Society's condition. The Secretary was instructed to prepare a list by counties of those members who had given notes for their dues and which notes still remain unpaid and to have this list available for the Council at its meeting in Battle Creek.

4. The Secretary reported upon the arrangements and program that were being perfected for the annual meeting in Battle Creek. These were approved.

5. Upon motion of Boys-Carstens the Secretary was directed to send out notices that the Council would convene at a dinner session in the W. K. Kellogg Hotel in Battle Creek at 7:00 p. m. on September 10.

6. Dr. J. B. Bradley, chairman of the Legislative Committee, reported upon the activities of his committee and made several suggestions as to further policies to be observed. The committee was commended for its activities and was instructed to continue with its program.

7. The Chairman presented a communication from Dr. Bruce requesting an appropriation of $1,500 to aid in defraying the expenses of Regional Post Graduate Clinics during the coming winter. Upon motion of Carstens-Boys this request was referred to the entire Council to be considered at the Battle Creek meeting.

8. The Chairman of the Council presented the resignation of the Secretary to take effect on September 15, 1934. Upon motion of Cook-Boys the resignation was accepted. Upon motion of Cook-Boys the Chairman was instructed to appoint a committee of three who shall prepare a suitable statement setting forth the services of the retiring Secretary and present the same for consideration and action at the Battle Creek meeting of the Council.

9. The Executive Committee devoted considerable time in lengthy discussion as to the policy that shall be pursued in the selection of a successor to the Secretary. Upon motion of Cook-Boys the Secretary was directed to prepare a letter which is to be sent immediately to each Councilor setting forth the suggestion that pending the election of a new Secretary that the Chairman of the Council act as Secretary.

10. Upon motion of Cook-Boys the Chairman of the Council was authorized to receive and accept the records, funds and properties of the Society when the Secretary relinquishes his office, pending action by the Council.

The Executive Committee adjourned at 11:05 p. m.

Signed: F. C. WARNSHUIS, *Secretary.*

PREVENTIVE MEDICINE

Joint meeting of the Preventive Medicine Committee of the Michigan State Medical Society with the Michigan Tuberculosis Association was held in Lansing Friday, July 13, 1934.

Members present: Chairman Geib, Byington, Holmes, O'Meara, Eckland, and Miner. Guest, Dr. H. Vaughan. Officers and members of the Michigan Tuberculosis Association, Drs. Douglas, Sundwall, Shepard, and Mr. Werle.

Dr. Douglas opened the discussion with explanation of the Association's present method of case finding. The films are sent to Dr. Evans of Detroit for development and reading. He is paid 15c per film, to date 4,800 films at a cost of $7,000 or approximately $1.60 per x-ray.

As applied to Medical Participation:

1. Local physicians can be taught to do skin testing and are paid $2.50 per hour or $15.00 per day.
2. Local x-rays have not proved satisfactory.

Motion made: That a joint Committee of three (3) members from the Michigan Tuberculosis Society and three (3) members from the Preventive Medicine Committee be appointed to study a definite plan for a state campaign of tuberculosis case finding and report back to this group. Carried.

Motion made: That the Preventive Medicine Committee petition the Exhibition Committee for a free booth at the annual meeting of the Michigan State Medical Society for the Michigan Tuberculosis Society. Carried.

Joint meeting adjourned.

Members of the Michigan Tuberculosis Society took their leave and the meeting of the Preventive Medicine Committee was called to order.

Minutes of the last meeting were read and approved.

There was a lengthy discussion regarding the various angles of the District Plan which was proposed at the Muskegon Meeting.

Motion made: That Drs. Byington and Geib formulate an outline for the various District Chairmen to use for the coming district meetings. Carried.

The meeting adjourned.

(Signed) FREDERICK B. MINER, *Secretary.*

COUNTY SOCIETIES

CASS COUNTY MEDICAL SOCIETY

A joint meeting of the Berrien-Cass County Medical Society with the Berrien County Bar Association, was held July 18, 1934, at the Berrien Hills Country Club. The meeting was called to order by Victor M. Gore, president of the Berrien County Bar Association. The Berrien-Cass County Medical Societies were welcomed and the following resolution in memory of Dr. C. N. Sowers, who died yesterday morning, was unanimously adopted.

WHEREAS, an allwise God has deemed best to withdraw from our presence a Medical Man, who has given his life in his chosen profession, one who has always held the respect of his fellow practitioners, one who has held the heartfelt respect of his community, one who has been an active worker and teacher in Medical Science.

THEREFORE, BE IT RESOLVED, that the Berrien County Medical Society and the Berrien County Bar Association, in joint meeting, express their sorrow to the family and the Secretaries of the combined professions express to the family and spread on the minutes of their respective Societies this resolution.

Doctors Mitchell, Witt and Mr. Gore eulogized his memory. The meeting was then turned over to the Berrien County Medical Society for a short business meeting in which the schedule for the Michigan Crippled Children's Commission was accepted, having been previously accepted by the staffs of both hospitals.

A letter from Doctor Morrill asking for reinstatement of membership from his leave of absence, was referred to the Membership Committee. Richmond appointed a Resolutions Committee, consisting of Doctors Witt (Chairman), Ellet and Hanna to report at the August meeting. The meeting was then turned back to Mr. Gore. Mr. Roscoe Bonisteel gave a very interesting address on the "Integration of the Bar," and drew a parallel between the problems of the medical profession and the legal profession. At the conclusion of his speech, the meeting was adjourned.

We note with pleasure the presence of Dr. C. E. Boys, the Councilor for this district, who spoke profusely in support of the schedule for the Michigan Crippled Children's Commission, upon request.

OFFICIAL PROGRAM

114th Annual Meeting, Michigan State Medical Society

September 11, 12 and 13, 1934

W. K. Kellogg Auditorium, Battle Creek, Michigan

OFFICIAL CALL

The Michigan State Medical Society will convene in annual session in Battle Creek on September 11-12-13, 1934. The provisions of the Constitution and By-laws and the official program will govern the deliberations.

GEORGE L. LEFEVRE, *President*
B. R. CORBUS, *Chairman Council*
H. A. LUCE, *Speaker*

Attest:
F. C. WARNSHUIS, *Secretary*

MEETING PLACE

All sessions will be held in the W. K. Kellogg Auditorium.

GENERAL MEETING

Wednesday Morning, September 12, 11:00 A. M.
Main Auditorium

Presiding: GEORGE L. LEFEVRE, President—Muskegon

1. Invocation.
2. Welcome, Address—A. E. McGregor M.D., President Calhoun County Medical Society.
3. General Announcements—F. C. Warnshuis, Secretary.
4. President's Annual Address—George L. LeFevre, Muskegon.
5. Address—(Invited Guest).
6. Address—W. L. Bierring, M.D., President American Medical Association, Des Moines, Ia.
7. Induction into Office of President-elect Richard R. Smith, Grand Rapids.
8. Adjournment.

Note: The public is invited to attend this general meeting.

SECTION PROGRAMS

General Medicine

Chairman: C. C. STURGIS, Ann Arbor.
Secretary: MERRILL WELLS, Grand Rapids.

First Session—Wednesday Morning, Sept. 12, 1934
9:00 A. M.

1. Chairman's Address—"An Appraisal of the Therapeutic Methods Used in the Treatment of Lobar Pneumonia"—C. C. Sturgis, Ann Arbor.
2. "The General Practitioner as His Own Neurologist"—Hugo Freund, Detroit.
   Discussion—
   1. I. W. Greene, Owosso.
   2. F. P. Currier, Grand Rapids.
   3. J. T. Sample, Saginaw.
3. "Edema and Ascites"—William A. Thomas, Chicago.
   Discussion—
   1. M. A. Mortensen, Battle Creek.
   2. R. L. Novy, Detroit.
   3. Richard M. McKean, Detroit.
4. Address of the President of the Michigan State Medical Society before all Sections at 11 A. M.

Second Session—Thursday Morning, Sept. 13, 1934
9:00 A. M.

1. "Agranulocytic Angina"—W. H. Gordon, Detroit.
   Discussion—
   1. C. C. Sturgis, Ann Arbor.
   2. Milton Shaw, Lansing.
2. "Peptic Ulcer: A Consideration of the Factors of Chronicity and a Critique of Methods of Treatment"—Charles L. Brown, Ann Arbor.
   Discussion—
   1. E. L. Eggleston, Battle Creek.
   2. B. R. Corbus, Grand Rapids.
3. "Surgery in the Management of Heart Disease"—E. C. Cutler, Professor of Surgery, Harvard Medical School, Boston, Mass.
4. "The Detection of Early Tuberculosis"—H. S. Willis, Northville, Michigan.
   Discussion—
   1. John Barnwell, University Hospital, Ann Arbor.
   2. Salvatore Lojacono of Morgan Heights Sanatorium, Marquette.

Surgery

Chairman: EARL I. CARR, Lansing.
Secretary: H. K. SHAWAN, Detroit.

First Session—Wednesday, Sept. 12, 1934
9:00 A. M.

1. Chairman's Address—Earl I. Carr, Lansing.
2. "Tannic Acid Treatment of Burns"—Grover C. Penberthy, Detroit.
3. "Treatment of Facial Wounds Due to Automobile Accidents"—L. Claire Straith, Detroit.
   Discussion—
   Ferris Smith, Grand Rapids.
4. "Fracture of the Lower Extremity"—Peter A. Bendixen, Davenport, Iowa.
   Discussion—
   1. George J. Curry, Flint.
   2. Clifford B. Brainard, Battle Creek.
5. Adjourn for President's Address at 11 A. M.

Second Session—Thursday, Sept. 13, 1934
9:00 A. M.

1. "Lesions of the Esophagus"—Roy D. McClure, Detroit.
   Discussion—
   1. William A. Hudson, Detroit.
   2. John Alexander, Ann Arbor.

2. "Intestinal Fistulæ"—Frederick A. Coller and H. K. Ransom, Ann Arbor.
   Discussion—
   1. Julius H. Powers, Saginaw.
   2. Alexander J. MacKenzie, Port Huron.
3. "Peri-anal Suppuration as a Focus of Infection"—Louis J. Hirschman, Detroit.
   Discussion—
   1. Karl B. Brucker, Lansing.
   2. G. M. Brown, Bay City.
4. "The Treatment of Cerebro-cranial Injuries"—Loyal Davis, Chicago.
   Discussion—
   1. Max M. Peet, Ann Arbor.
   2. John J. Walch, Escanaba.
   3. E. S. Gurdjian, Detroit.

Gynecology and Obstetrics

Chairman: HAROLD FURLONG, Pontiac.
Secretary: HAROLD MACK, Detroit.

First Session—Wednesday Morning, Sept. 12, 1934
9:00 A. M.

1. Report of Committees on—
   (a) Clinical Problems—Dr. Miller.
   (b) Birth Certificates—Dr. Alles.
   (c) Birth Control—Dr. Mack.
2. Chairman's Address.
3. "The Value of the Potter Type of Internal Podalic Version in the Management of Persistent Posterior Occiput Cases"—Morrell M. Jones, Pontiac.
4. "Abdominal Pregnancies"—Cleary N. Swanson, Detroit.
5. "Some Phases of the Conduct of Labor"—Joseph L. Baer, Chicago.
6. Recess and Discussion.
7. Adjourn for Address of President, Michigan State Medical Society at 11:00 A. M.

Afternoon Session

Combined Section Meeting.

Second Session—Thursday, Sept. 13, 1934
9:00 A. M.

1. "Treatment of Trichomonas Vaginalis"—J. Campbell Smith, Detroit.
2. "Late Studies on Roentgenography of Pelvic Organs"—J. Duane Miller and Dr. Meness of Grand Rapids.
3. "The Relation between Adenocarcinoma of the Body and Fibroid Tumors"—George Sehring, Department of Obstetrics and Gynecology, University of Michigan.
4. "Excessive Cigarette Smoking in Women and Its Effect upon Their Reproductive Efficiency"—Alexander M. Campbell, Grand Rapids.
5. "The Management of Occiput Posterior"—W. C. Danforth, M.D., Evanston, Ill.

   Abstract of paper—
   Occiput posterior is one of the most common complications of obstetric practice. Improper management of occiput posterior is responsible for many maternal injuries and neo-natal deaths. Many procedures have been recommended for the management of labors complicated by this condition. These are briefly discussed. Particular attention is paid to occiput posterior and a method for accomplishing this, which has been used by the essayist, is described. Personal experience and results are given.

6. Round Table Discussion in Obstetrics. Discussion led by Dr. W. C. Danforth, Associate Professor of Obstetrics and Gynecology, Northwestern University.
   Physicians desiring questions answered or clinical problems discussed during the Round Table period are requested to forward their names and the subject for discussion to the section chairman or secretary during the meeting previous to the Round Table Discussion.
7. Election of Officers.

Afternoon Session

Combined Section Meeting.

Ophthalmology and Otolaryngology

Chairman: John R. Rogers, Grand Rapids.
Secretary: RALPH B. FAST, Kalamazoo.

First Session—Wednesday, Sept. 12, 1934
9:00 A. M.

OPHTHALMOLOGY

1. "Some of the Newer Developments in the Practice of Ophthalmology"—Conrad Berens, M.D., New York City.

   The plan of the program has been changed slightly this year and our time for this session has been limited to two hours.
   A general session of all sections is called for 11 A. M. on this day.
   Dr. Berens will discuss the following subjects:
   1. One-half hour on Orthoptic Training.
   2. About twelve minutes on Ocular Fatigue.
   3. Ten minutes on Telescopic Lenses.
   4. Five minutes on Contact Lenses.
   5. About ten minutes on Anisekonia.
   6. About one-half hour on Operations for Detachment of the Retina and Chronic Infections of the Eye.

   The remaining time, about one-half hour, will be given over to General Discussion.
2. Round Table Discussion after luncheon conducted by Dr. Berens.

Second Session—Thursday, Sept. 13, 1934
9:00 A. M.

OTOLARYNGOLOGY

1. "Temporal Lobe Abscess of Otitic Origin"—Oliver B. McGillicuddy, Lansing.

   A brief discussion of the type of infection that results in abscess of the temporal lobe with consideration of the clinical signs, various methods of approach and the ultimate prognosis of such cases. Case reports of two recent patients treated simultaneously with recovery, will be used to illustrate the paper.

   Discussion—
   1. A. C. Furstenberg, Ann Arbor.
   2. Carl Snapp, Grand Rapids.
2. "The Value of Prophylactic Methods in the Prevention of Common Colds"—Perrin Hamilton Long, Johns Hopkins Hospital, Baltimore, Md.

   There can be no question of the enduring widespread public interest in the prevention of colds. During the past fifty years numerous remedies and methods have been advanced as specifics in the prophylaxis of upper respiratory tract infection. Cocaine hydrochloride, bicarbonate of soda, hardening exercises, oral antiseptics, vaccines and finally vitamins and ultra violet light have had their supporters and with the exception of the last two measures, have failed to gain any extensive group of adherents.
   It will be our purpose in this paper to discuss the experimental background and the clinical applications of vitamin therapy, the use of ultra violet light and bacterial vaccines in prophylaxis of common colds.
   On the experimental side there is unquestionable evidence that Vitamin A is essential if small laboratory animals such as rats and guinea pigs are to be maintained in a state which will permit them to resist the

infections endogenous to such animals. There is also very definite evidence as to the bactericidal and viricidal effects of ultra violet light in *in vitro* experiments. However, when these methods of prophylaxis are carried over to man the results are debatable.
In the later stages of common colds it is the rule to find many bacteria in the nasal secretions. It is generally supposed that these organisms contribute to the symptomatology of the disease and hence that bacterial vaccines are of value in the prophylaxis of colds. It is our opinion that these organisms play little, if any, rôle in the infectious process. Evidence in support of this belief will be presented.

Discussion—
1. James Maxwell, Ann Arbor.
2. Carl G. Wencke, Battle Creek.

3. "The Rhinological Management of the Allergic Individual"—James E. Croushore, M.D., Detroit Polyclinic, Detroit, Mich.

Discussion is made of the procedure for proper diagnosis. Local treatment for hyperesthetic rhinitis is essentially valueless and generally prolonged because of faulty diagnosis. The treatment of allergic rhinitis complicated by polypoid degenerations, sinus disease and malformations is given detailed attention from the allergic and rhinological standpoints.

Discussion—
1. Samuel J. Levin, Detroit.
2. Clifford Brunk, Detroit.

4. "Headache"—J. Milton Robb, Detroit.

It is unfortunate that the most common symptom that brings the patient to the doctor's office—headache—receives so little discussion. It is a subject in which every man in every field of the practice of medicine should be vitally interested.
In our discussion, we shall not treat of the headache lasting for several days, which is a part of the onset of acute disease. We are interested in the chronic or recurrent type, the analysis of which depends upon a concise, definite plan of attack.

Discussion—
1. Edgar Kahn, Ann Arbor.
2. Frederic Schrieber, Detroit.

Pediatrics

Chairman: W. E. COLLINS, Kalamazoo.
Secretary: EDGAR E. MARTMER, Detroit.

First Session—Wednesday, Sept. 12, 1934
9:00 A. M.

1. Address of Chairman—Ward Collins, Kalamazoo.
2. "Vomiting in Infancy"—

Discussion—
1. Thomas Gordon, Grand Rapids.
2. Henry Vanden Berg, Grand Rapids.
3. David J. Levy, Detroit.

Second Session—Thursday, Sept. 13, 1934
9:00 A. M.

1. "Physiological Postural Deformities in Contrast to Pathological Postural Deformities"—C. E. Badgley, Ann Arbor.
2. "Infantile Eczema"—George Van Rhee, Detroit.

A discussion of the etiology, pathology, diagnosis and treatment of infantile eczema with particular attention to the differential diagnosis of infantile eczema, seborrheic dermatitis and erythroderma exfoliativa. Lantern slides.

3. "Pyelitis in Infancy and Childhood"—W. K. Rexford, Detroit.

A review of a series of cases followed at the Children's Hospital of Michigan for the past three years. Anomalies of the urinary tract and other cystoscopic findings. Lantern slides.

4. "Sinus Disease in Childhood"—Ferris Smith, Grand Rapids.

The incidence of sinus disease in children is greater than is generally recognized. It is particularly prevalent in Michigan. Dr. Smith's wide experience in the treatment of sinus disease in children makes this a very worth while paper.

5. "Conditions in Childhood Associated with Hypoglycemia"—W. McKim Marriott, Dean of Washington University, School of Medicine, St. Louis, Missouri.

Discussion—
Thomas B. Cooley, Detroit.

Dermatology and Syphilology

Chairman: ROBERT C. JAMIESON, Detroit.
Secretary: A. R. WOODBURNE, Grand Rapids.

First Session—Wednesday, Sept. 12, 1934
9:00 A. M.

1. Chairman's Address—R. C. Jamieson, Detroit.
2. "Skin Disease in Industry"—A. E. Schiller, Detroit.
3. "Immunological Aspects of Epidermophytosis"—L. W. Shaffer.
4. "Allergy in Dermatology"—M. B. Sulzberger, New York.

Second Session—Thursday, Sept. 13, 1934
9:00 A. M.

Presentation of Cases.

COMBINED SECTION MEETINGS

Note: All Scientific Sections will meet in combined general meeting on Wednesday and Thursday afternoons at 1:15 P. M. There will be no discussion of the following program.

First Combined Session

Wednesday, Sept. 12, 1934
1:15 P. M.
Main Auditorium

1. "Allergic Dermatoses"—Marion B. Gulzberger, New York City.

A tentative classification based upon (a) the site of shock tissue, and (b) the lapse of time between union of allergen with sensitive tissue and the appearance of reaction. The deductions which may be made from such a classification:
(1) regarding the various types of sensitization dermatoses;
(2) the specific substances which must be suspect in each type;
(3) the special technic of testing which is indicated in each type;
(4) the therapy of each type.

2. "Individualizing Anesthesia"—Reuben Maurits, Grand Rapids.
3. "Acute Hepatic Insufficiency with Special Reference to Liver Tests and Therapy"—William A. Thomas, Chicago, Ill.
4. "Fibroids of the Uterus"—Joseph L. Baer, Chicago, Ill.

One thousand one patients were treated for fibroids of the uterus during the past eleven years.
The frequency of total and vaginal hysterectomies has shown a continuing increase while irradiation has shown a marked decline.
The selection of radium as the treatment for fibroids has steadily diminished because of the increasingly long list of direct contra indications, the undesirability of a precipitate menopause and the inability to examine the pelvic and abdominal viscera.
The total mortality in this series was 0.7 per cent (seven deaths). In the second group of 474 patients it was 0.21 per cent (one death).
Partial or complete removal of the adnexa was done in 50 per cent of the patients. Indications for these operations on the adnexa included not only pathology, but mechanical reasons and prophylaxis.
No evidence was found to justify the conclusion that fibroids result from ovarian pathology.
Absolute sterility was present in 19.3 per cent.
Fibroids play little or no rôle in the production of absolute sterility.
Pelvic malignancy was found in 1 per cent.

5. Clinico-Pathological Conference conducted by F. W. Hartman, Detroit.

Second Combined Session

Thursday, Sept. 13, 1934
1:15 P. M.

1. "The Common Cold"—Perrin Hamilton Long, Baltimore, Md.

   It has been estimated that colds cost the people of the United Stated two billion dollars a year. The economic importance alone of such a disease is manifest.

   Although many theories as to the causation of colds had been advanced no real progress was made until Kruse announced in 1914 that he had produced colds in human volunteers by intranasal inoculations with Berkefeld filtrates of the nasal secretions from individuals ill with natural colds. During the next ten years the observations of Kruse were confirmed and denied by several investigators. In the last decade, however, the investigations of Dochez and his associates and the results of our own observations have demonstrated quite conclusively that the causal factor in common colds is a filterable agent. Dochez has been able to propagate this agent in a tissue medium through many generations.

   Colds occur in epidemic peaks throughout the year with the highest incidence being reached in the early fall. The average individual suffers from three infections a year. The highest attack rates occur in children under five years of age. Contact with an infected person, food, or fomites is essential for the production of the disease. Completely isolated communities are free from colds. The occurrence of abnormalities of the upper respiratory tract does not predispose an individual to colds and the removal of these abnormalities does not necessarily decrease the incidence of upper respiratory tract infection. No durable immunity has been demonstrated following an infection.

   Colds are protean in their manifestation, ranging from mild nasal infections to severe respiratory tract involvement with constitutional symptoms. There is no distinct boundary by which we can delimit colds from influenza. The factors governing the type of infection suffered by an individual have not as yet been elucidated.

   Bacterial vaccines, vitamin containing preparations, ultra violet radiation and many other methods of prophylaxis have at best given indifferent results. There is no reliable cure for a cold and the best treatment is for the infected individual to remain in bed during the first seventy-two hours of his infection.

2. "Pre-operative and Post-operative Treatment of the Toxic Thyroid Patient"—E. C. Cutler, Boston, Mass.
3. "Hematuria"—Wm. J. Butler, Grand Rapids.
4. "Treatment of the Diarrheas of Infancy"—McKim Merriott, St. Louis, Mo.
5. "Surgical Treatment of Intractable Pain"—Loyal Davis, Chicago, Ill.
6. "Tannic Acid Treatment of Burns"—Grover C. Penberthy, Detroit.

WOMAN'S AUXILIARY

PROGRAM FOR MEDICAL AUXILIARY CONVENTION

September 11, 12, 13, 1934
Headquarters—Battle Creek Sanitarium

Tuesday, Sept. 11, 1934

Registration, Main Lobby, Sanitarium, from 3:00 P. M. to 6:00 P. M.

Wednesday, Sept. 12, 1934

Registration, Main Lobby, Sanitarium, from 10:00 A. M. to 6:00 P. M.

12:30—Noon—Kellogg Hotel. Luncheon for Board Members and County Presidents. Round table discussion.

2:30 P. M. to 5:00 P. M. Sightseeing trips. Golf.

7:00 P. M. BRING YOUR HUSBAND dinner.

Thursday, Sept. 13, 1934

Registration 8:00 A. M. to 12:00 Noon.

10:00 A. M. General Meeting. Mezzanine, Sanitarium.

Reading of Minutes.
Reports of Officers.
Reports of Committees.
Report of National Convention.
Reports of County Presidents.
Address of President.
Miscellaneous Business.
Election of Officers.

12:30. Luncheon, Main Dining Room, Sanitarium. Mrs. G. Henry Mundt from Chicago, Illinois, speaking on "Greetings from the Advisory Board."

HOUSE OF DELEGATES

Speaker: H. A. Luce, Detroit.
Vice Speaker: Frank E. Reeder, Flint.
Secretary: F. C. Warnshuis, Grand Rapids.

First Session

Tuesday, September 11, 1934, 9:30 A. M.
W. K. Kellogg Auditorium

1. Call to Order.
2. Report of Credentials Committee.
3. Roll Call of Delegates.
4. Speaker's Address.
5. President's Address.
6. President-Elect's Address
7. Annual Report of the Council.
8. Appointment of Reference Committees.
   (a) Council's Reports.
   (b) Society Business.
   (c) Miscellaneous Business.
   (d) Reports of Committees.
9. Committee Reports:
   (1) Legislation.
   (2) Woman's Auxiliary.
   (3) Radio Committee.
   (4) Preventive Medicine.
   (5) Delegates to A. M. A.
   (6) Maternal Welfare.
   (7) Therapeutics.
   (8) Cancer Committee.
10. Report of Committee on Economics.
11. Resolutions. (All resolutions are to be presented in triplicate.)
12. New Business.
13. Unfinished Business.
    (a) Amendments to Constitution.
14. Recess.

Second Session

Tuesday, September 11, 1934, 2:30 P. M.

1. Call to Order.
2. Roll Call.
3. Report of Reference Committees.
4. Unfinished Business.
5. Resolutions and New Business.
6. Recess.

Third Session

Tuesday, September 11, 1934, 7:30 P. M.

1. Report of Credentials Committee.
2. Roll Call.
3. Reports of Reference Committees.
4. Elections:
   (1) President-Elect.
   (2) Report of Nominating Committee.
   (3) Election of Delegates and Alternates to A. M. A.
   (4) Councilors:
   13th District—B. H. Van Leuven—Retiring.
   14th District—H. H. Cummings—Retiring.
   (5) Place for 1935 Annual Meeting.
   (6) Speaker.
   (7) Vice Speaker.
5. Unfinished Business.
6. Adjournment.

COMMITTEE REPORTS

RADIO COMMITTEE

To the House of Delegates of the Michigan State Medical Society:

Herein is the report of the Radio Committee for the year ending June 30, 1934. This committee consists of W. A. Manthei, Lake Linden, L. F. Foster, Bay City, and William J. Stapleton, Jr., Chairman, Detroit. Four County Societies offered programs, namely—Jackson, Calhoun, Ingham and Wayne. Material for the talk was obtained from the A. M. A., Wayne County Medical Society and individual doctors. The thanks of the Committee are hereby extended not only to the above, but to the various Radio Stations who gave to the County Societies the time for broadcasting these health talks. We do not feel that it is necessary to offer any arguments regarding the giving of radio talks by the members of the medical profession. Our parent association, the A. M. A., is now broadcasting on both the great networks of the country, this time being donated by the Columbia and National Broadcasting Companies. The only rule laid down by the A. M. A., is "It is the opinion of the Judical Council that radio broadcasting is a form of publicity and its use is subject to the same rules as those which apply to newspaper advertising and, therefore, is to be governed by the ethical principles of the Profession,"—Proceedings, House of Delegates, June, 1923.

Your Chairman has had an interview with Mr. Armstrong Perry, Council for "The National Committee on Education by Radio." As a result we are on their mailing list and receive much valuable information regarding radio.

The American Medical Association has a large and growing list of radio talks varying from five to fifteen minutes in length. These are available not only to County Societies, but I think can be obtained by any member of a County Society. Upon application a list of talks will be forwarded. Dr. Bauer is in charge of this work.

First comes Bay County.

Dear Dr. Stapleton:—
The following is the list of radio speakers and speeches over WBCM by the Bay County Medical Society:
February 26th—Safeguarding Your Health, Dr. Laverty.
March 1st—Whooping Cough, Dr. Foster.
March 5th—X-ray Treatment, Dr. Ziliak.
March 8th—Tuberculosis, Dr. Perkins.
March 15th—Human Repair Shop, Dr. Tarter.
March 22nd—Overweight, Dr. Husted.
March 29th—Cross-eyed Child, Dr. Sherman.
April 5th—Washington's Death, Dr. Moore.
April 12th—Tuberculosis, Dr. Perkins.
April 16th—Swimming Hazards, Dr. Criswell.
April 19th—Reducing, Dr. Laverty.
April 23rd—Diseases of the Gums, Dr. Dobson.
April 26th—Summer Round-up of Children, Dr. Foster.
April 30th—Scientific Experiments and Med., Dr. Brown.
May 3rd—Anemia, Dr. Laverty.
May 7th—Fads and Fancies about Stomach Trouble, Dr. Stinson.
May 10th—Acne, Dr. Laverty.

Fraternally yours,
(Signed) L. Fernald Foster, M. D.,
Sec'y., Bay County Medical Society.

Dear Dr. Stapleton:—
I herewith submit to you, report of the radio activities carried out by members of the Ingham County Medical Society, and sponsored by the Second Councillor District, over station WKAR, Michigan State College at East Lansing.

Members of the Ingham County Medical Society have generously contributed their time in carrying on this project.

Station WKAR will be closed during the summer vacation at the college, and our next year's activities will be governed by the amount and character of comments made concerning the past year's broadcasting.

The interest in these talks as evidenced by comment made by the listeners is not very great during the season the broadcastings are being carried on. However, the director of the station informs me that when the broadcast ceases, the public make inquiry as to why we are off the air. Apparently our programs are conspicuous when absent.

The Jackson programs, broadcast over the Jackson Station, are sponsored by the Jackson Medical Society and have not reported to me as yet. Undoubtedly they will report before the time of the State Meeting. The radio material we have used in our program is at your disposal if you chose to use it over other stations.

Sincerely yours,
(Signed) J. Earl McIntyre, M. D.,
Councillor, Second District.

To the Councillor of the Second District of the Michigan State Medical Society:
The Medical Society of Ingham County participated in the Health Education program of the Michigan State Medical Society by sponsoring a series of medical talks over Radio Station WKAR.

There were eighteen talks given at intervals of one a week from January eleventh, nineteen-thirty-four to May seventeenth, nineteen-thirty-four inclusive. There was no talk on March twenty-ninth, due to the Spring Vacation period at the Michigan State College.

It was decided by the Director of the radio program and the District Councillor that we would not sponsor a program this year, because the response was not very great the previous year. However, the Program Director of the Radio Station, WKAR asked us to participate in their educational program again this year and we consented to do so.

These talks were given every Thursday afternoon from two-thirty P. M. to two-forty-five P. M., by various members of the County Medical Society.

The members of the Society co-operated splendidly when called upon to give the talks, with one exception. We had one talk scheduled for May twenty-fifth, but the director was unable to find a speaker, who had not previously given his time, and who did not have a golf date for that afternoon.

Although we have received no direct replies to our radio talks, I believe the program has been a successful undertaking this year. Some of the Doctors who talked reported that they had heard favorable comments on some of the talks given.

Attached is a list of the talks given and the name of the doctor by whom the talk was given.

Respectfully submitted,
(Signed) R. J. Himmelberger, M. D.,
Chairman, Radio Program.

1934

1. January 11, 1934—Why have a Health Department? Dr. E. R. VanderSlice.
2. January 18, 1934—Epidemic Influenza, Dr. J. H. Albers.
3. January 25, 1934—High Blood Pressure, Dr. Cameron Keim.
4. February 1, 1934—Rheumatic Fever, Dr. R. J. Morrow.
5. February 8, 1934—Heart Disease in Children, Dr. R. R. McCrumb.
6. February 15, 1934—First Aid, Dr. H. C. Rockwell.
7. February 22, 1934—What About Our Drugs? Dr. O. B. McGillicuddy.
8. March 1, 1934—Unconsciousness, Dr. Howard Willson.
9. March 8, 1934—Management of the Expectant Mother, Dr. H. A. Miller.
10. March 15, 1934—Measles, Dr. C. R. McCorvie.
11. March 22, 1934—Convulsions in Infancy and Childhood, Dr. W. G. Wight.
12. April 5, 1934—Head Pains and Palpitations, Dr. L. E. Beeuwkes.
13. April 12, 1934—Whooping Cough, Dr. F. L. Troost.
14. April 19, 1934—Cancer in Men, Dr. E. J. Robson.
15. April 16, 1934—The Relation of the County Medical Society to the Community, Dr. Ray Pinkham.
16. May 3, 1934—Diptheria, Dr. Edith Hall Kent.

17. May 10, 1934—The Human Repair Shop, Dr. J. E. McGillicuddy.
18. May 17, 1934—Infantile Paralysis, Dr. J. S. Rozan.

Dear Dr. Stapleton:—

I am enclosing a list of medical talks which have been given over Radio Stations WWJ and CKLW from June 1, 1933 to June 16, 1934.

Sincerely yours,
(Signed) Fred H. Cole,
Chairman of the Radio Section,
Wayne County Medical Society.

Radio Talks over Stations WWJ from June 1, 1933, to June 14, 1934.
Thursday from 4:30 to 4:45.

SPEAKER TITLE

Dr. Alonzo Norconk—Diseases of the Thyroid.
Dr. G. W. Laning—Care and Feeding of the Child During Hot Weather.
Dr. Wm. Gordon—Faulty Metabolism.
Dr. Franklin Peck—The Diabetic Camp.
Dr. H. A. Cushman—The Important Periods of Female Life and Their Relation to General Health.
Dr. Wm. Donald—The Common Summer Diseases: How to Avoid Them and How to Cure Them.
Dr. George Waldbott—Hay Fever.
Dr. G. C. Penberthy—The Significance of Bone Pain and Tenderness in the Child.
Dr. Jack Agins—The Significance of a General Physical Examination.
Dr. H. I. Kallet—N. I. R. A.
Dr. W. J. Stapleton, Jr.—That Tired Feeling.
Dr. H. F. Vaughan—Safeguarding Your Health.
Dr. Emil Amberg—The Detroit League of Hard-Hearing.
Dr. F. C. Witter—Facts for the Layman About Cancer.
Dr. Chas. Kuhn—Why Grow Old?
Dr. E. S. Guardjian—The History of Progress in Brain Operations in the Last 4,000 Years.
Dr. Geo. P. Myers—Fractures.
Dr. Eugene Osius—Goitre.
Dr. R. K. Novy—The Heart.
Dr. Fred W. Thomas—Dangerous Ages.
Dr. A. W. Blain—The Cancer Problem.
Dr. E. C. Baumgarten—What Everyone Should Know About Appendicitis.
Dr. Wm. Burns—Raising Cain.
Dr. John Watkins—The Clinical Laboratory and Modern Medicine.
Dr. J. C. Smith—Pre-Natal Care in Obstetrics.
Dr. Richard McKean—Periodic Headaches.
Dr. Thomas Miller—Skin Cancer.
Dr. N. H. Schlafer—What to do in an Emergency.
Dr. Robert C. Moehlig—Some Pituitary Disturbances.
Dr. Harry Saltzstein—The Home Treatment of Minor Injuries and Infections.
Dr. W. C. Cole—The Prevention of Tuberculosis.
Dr. Robert C. Jamieson—Eczema.
Dr. Arthur Hammond—Foreign Bodies in the Food and Air Passages.
Dr. A. P. Wilkinson—The Common Cold.
Dr. Edgar G. Cochrane—Infant and Child in the Home.
Dr. Wm. Gordon—The White Cell.
Dr. Don Gudakunst—School Health Service.
Dr. Bruce C. Lockwood—Preventive Medicine.
Dr. Sam Altshuler—Dangers of Obesity.
Dr. L. T. Clark—What is Tuberculin?
Dr. Leland F. Carter—Our Eyes—Young and Old.
Dr. W. J. Wilson, Jr.—Blood Pressure.
Dr. B. R. Shurly—Tuberculosis and the Child.
Dr. Clarence Umphrey—Common Fractures.
Dr. Harry S. Berman—The Normal and Problem Child.
Dr. O. A. Brines—Cancer Facts.
Mrs. S. Homer Ferguson—Public Coöperation for Maternal Health.
Dr. John M. Carter—Progressive Deafness.
Dr. David R. Clark—The Thing We Call Worry.
Dr. John A. Johnston—Tuberculosis and the Child.
Dr. Hampton P. Cushman—What Every Mother Should Know.
Dr. J. E. G. Waddington—Satisfactory Medical Care.
Dr. Harold Henderson—Some Popular Misconceptions Regarding Pregnancy.
Dr. Harry August—The Nervous Breakdown.
Dr. M. B. Landers—Is Tuberculosis Hopeless?
Dr. Wm. Burns—Our Question Box.
Dr. W. A. Chipman—Rupture.
Dr. David I. Sugar—Rheumatism and Heart Disease in the Young.
Dr. Stanley Insley—Facts Concerning Bronchial Asthma.
Dr. D. L. Drummond—Chronic Arthritis.
Dr. S. Hookey—The Normal Skin.
Dr. Clark Lemley—Is it Goitre that is Poisoning You?
Dr. L. F. Segar—Diabetes.
Dr. Fred W. Munson—The Common Cold.
Dr. Gaylord Bates—Minor Injuries and Infections.
Dr. Robert Schaefer—Glandular Disturbances of Infancy and Childhood.
Dr. Nelson McLaughlin—Early Signs of Cancer.
Dr. Clarence D. Moll—Doctor, How's My Blood Pressure?
Dr. O. J. Shore—What Xray Tells Us About Bone and Joint Injuries.
Dr. E. A. Peterman—Indigestion.
Dr. Earl Lutz—What to do Before the Doctor Arrives.
Dr. Geo. M. Livingston—Fears, Anxieties and Worries.
Dr. Melvin O. Kernick—Value of the School Examination.
Dr. D. S. Brachman—Finding Tuberculosis.
Dr. Rollin H. Stevens—How X-ray and Radium Acts on Cancer.
Dr. Clair L. Straith—Plastic Surgery.
Dr. Lawrence Reynolds—Xray as an Aid in Diagnosis in Diseases of the Stomach and Intestines.
Dr. Nathan H. Moss—The Significance of Loss of Weight.
Dr. A. E. Schiller—Facial Blemishes—Their Origin and Treatment.
Dr. J. A. Hookey—Cosmetics.
Dr. C. C. Birkelo—What the Xray Can Tell Us About Tuberculosis.
Dr. Franklin B. Peck—Progress in Diabetes.
Dr. R. L. Fisher—Heart Disease.
Dr. E. R. Robbins—Some Facts About Glands.
Miss Emily Sargent—Improving Mother's Health.
Dr. Wm. C. Hawken—Operative Complications.
Dr. F. T. Munson—Headaches.
Dr. Wm. Fowler—Medicine and the Depression.
Dr. S. J. Levin—Hay Fever.
Dr. A. B. Wickham—Recovering from Tuberculosis.
Dr. Robert L. Mason—Problems in Infant Feeding.
Dr. N. H. Schlafer—What to do in an Emergency.

As will be seen some 127 talks were given by the various County Societies.

A special word of thanks is due Dr. Frederick Cole for his work in Wayne County.

Dear Dr. Stapleton:—

Am sorry to have to inform you that broadcasting over our local station was discontinued the first of the year largely because of a lack of suitable material.

Yours truly,
(Signed) R. H. Alter, M. D.,
Jackson County Medical Society.

Your chairman wrote Dr. Alter regarding the above and the following is his reply:

Dear Dr. Stapleton:—

I was out of town when your letter was received and am sorry it was impossible to answer sooner.

In regard to our broadcasting here will say that until this year I have taken charge of it myself and I was well pleased with the results. However, with my other duties it became necessary for me to ask that part of the load be shared with others. At my request this work was turned over to a committee who I am sorry to say did not take the interest which I think it deserved. Much of the material received from the A. M. A. was thought by the committee to be of not sufficient interest to broadcast and part of it had already been used.

I shall see, however, that it is re-established this Fall.

Yours truly,
(Signed) R. H. Alter.

In closing this report, the Commitee again thanks all those who have made possible this program.

Respectfully submitted,
(Signed) William J. Stapleton, Jr., M. D.,
Chairman, Radio Committee.

PREVENTIVE MEDICINE COMMITTEE

As Chairman of the Preventive Medicine Committee, I wish to submit the following report:

Committee meetings have been held in Detroit, Ann Arbor, and Muskegon. The work of the committee has been largely educational.

1. This committee has sponsored a series of articles written by Dr. H. F. Vaughan and dealing with the subject of medical participation which have appeared in the "Journal of the Michigan State Medical Society."

2. A meeting of the County Preventive Medicine Committees was held in Detroit in November, 1933. This was in the nature of a demonstration. The morning session was devoted to clinics in preventive medicine and the afternoon to a general discussion of medical participation.

3. One or more speakers were sent to fifteen county medical societies. Two of these meetings were held jointly with the Boards of County Supervisors and seven meetings heard talks on medical participation as well as clinical lectures.

4. A joint meeting with the Michigan Tuberculosis Association will be held in Lansing July 13th to try to work out a joint program in Tuberculosis case finding. A supplementary re-

port for this meeting will be given at the meeting of the Michigan State Medical Society in Battle Creek.

The Preventive Medicine Committee recommends to the Michigan State Medical Society,

1. That support be given to the Home Rule Movement. It is believed that the medical participation program advocated by this committee can be better carried out under Home Rule than under the present county government organization.
2. That the Michigan State Medical Society hire a full-time medical co-ordinator to carry out the program of the Preventive Medicine Committee.

The Preventive Medicine Committee wishes to thank Dr. Henry F. Vaughan for the articles which he wrote for the JOURNAL and for the many talks which he has given before county societies and boards of supervisors. We also wish to thank Drs. Gordon, Douglas, Evans, and Kasper for clinical talks which they have given and the W. K. Kellogg Foundation which has made it possible for the committee to send speakers to medical groups throughout the State.

Respectfully submitted,
LEDRU O. GEIB, *Chairman,*
Preventive Medicine Committee.

THE CANCER COMMITTEE

A meeting of the Cancer Committee of the Michigan State Medical Society was held at the Pantlind Hotel, Grand Rapids, Michigan, on Saturday noon, April 14, 1934. The following members were present: Dr. Osborne A. Brines, of Detroit, chairman; Dr. Carl V. Weller, of Ann Arbor, and Dr. Henry J. VanDenBerg, of Grand Rapids.

The report of the Sub-committee of the Committee on the Survey of Medical Services and Health Agencies of the Michigan State Medical Society, which was appointed to consider the cancer problem in Michigan, was carefully analyzed and considered. This report had been submitted by Dr. T. Leuceutia, of Detroit, and Dr. Carl V. Weller, of Ann Arbor, and has been accepted by the Society. A bulletin of the American Society for the Control of Cancer containing this report has recently been mailed to every member of the Society.

The following recommendations contained in this report were first considered: "A thorough survey by a trained personnel working in the field would reveal more completely the present facilities upon which future organizations may be built." "It is recommended that a fact finding investigation be initiated to learn definitely why there is a medium delay of six and one-half months between the first symptom and the first consultation with the physician."

Consideration was given to the advisability of inviting the American Society for the Control of Cancer to make a statewide cancer survey in Michigan. The enclosed letter from Dr. F. L. Rector, Field Representative, of the Cancer Society, setting forth in detail the methods which would be employed in making this survey, was considered.

It was unanimously agreed by the members of the Cancer Committee present that the Committee recommend to the Michigan State Medical Society, that an invitation be issued to the American Society for the Control of Cancer to make a cancer survey in the State of Michigan.

The following recommendations contained in the Sub-committee report were next considered. "All means of bringing the essential facts about cancer to lay people should be employed to the fullest degree." "It is recommended that thru more extensive instruction along these lines the medical schools and by post-graduate clinics, conferences and lectures, the profession be kept fully informed of advances in the field of endeavor suggested, and made more keenly conscious of individual responsibility toward the potential cancer patient. Similar instruction is appropriate for the dental profession."

The Cancer Committee urges the State Medical Society to seriously encourage inauguration of cancer programs in the county medical societies. It is recommended that at least two meetings a year some phase of cancer should be made a part of the scientific program of the county societies. It is further recommended that speakers for these occasions be arranged for and selected by the Cancer Committee of the State Society.

With the same Sub-committee recommendations in mind, it is recommended that the post-graduate school of the University of Michigan be requested to include as far as possible cancer instruction to the medical profession in its post-graduate activities.

It is further believed that cancer as a public health problem can be presented thru the medium of public school education, and it is recommended that every attempt should be made to arrange for a suitable talk to be made by appropriate physicians to high school students at frequent intervals.

The Committee believes that persistent and frequently repeated efforts in the direction of public education are necessary. The Committee approves and wishes to encourage the activities of the publicity department of the University of Michigan under the direction of Mr. Morrisey and believes that the publication of newspaper articles concerning cancer should be extended. The members of the Committee agreed to investigate ways and means of increasing the scope of newspaper publicity in the field of cancer.

Summary—The following recommendations are hereby made by the Cancer Committee of the Michigan State Medical Society:

1. Request the American Society for the Control of Cancer to make a statewide survey of Michigan.
2. Establish regular cancer programs in the meetings of the County Medical Society.
3. Request the post-graduate school of the University of Michigan to include more subjects dealing with cancer in its medical teaching activity.
4. Establish a definite and persistent cancer education program in the public schools.
5. Extend, in a systematic manner, newspaper publicity thruout the State in an attempt to acquaint the public at large with the magnitude of the cancer problem and to disseminate information which should tend to the earlier recognization of the disease.

Submitted by
O. A. BRINES, *Chairman.*

AMERICAN SOCIETY FOR THE CONTROL OF CANCER
1250 Sixth Avenue—Rockefeller Center
New York, N. Y.

823 Case Street,
Evanston, Illinois,
December 6, 1933.

Dr. O. A. Brines,
Chairman, Cancer Committee,
Michigan State Medical Society,
Receiving Hospital,
Detroit, Michigan.

Dear Doctor Brines:

The cancer survey made by the American Society for the Control of Cancer on invitation of state medical societies are essentially fact-finding surveys and not clinical. They are conducted along the following lines:

A short questionnaire is sent to each general hospital in the State of 25 or more beds, a few weeks before the field work is begun. These requests are for data on bed capacity, x-ray and radium facilities, laboratory facilities and personnel, and experience with cancer cases during the previous year, such as number of such patients admitted to the hospital, number dying and autopsied.

These reports are taken into the field and each hospital visited in turn and the facilities checked personally. Hospital executives and staff members are met and the cancer program discussed with those interested. The information is then analyzed and collected into a report together with a suggested program of better service to cancer patients in which the facilities of the State are included and others suggested to meet the needs of the largest possible number of people in the State.

The State Department of Health is invited to sponsor these surveys and to contribute statistical information on cancer mortality and mortality from other diseases. The State Hospital Association is also asked to approve and endorse the survey so that all interested groups will be informed as to its purposes and objectives.

No attempt is made to influence clinical activities except to encourage their improvement and to safeguard the interests of the patient by suggesting that approved methods of diagnosis and treatment are available and should be employed.

These surveys are made without expense to the medical societies. The co-operation of the various hospital staffs and officers of the State and local groups is expected after the invitation is once extended. This is usually accomplished thru the State Cancer Committee of the State Medical Society.

The report of the survey is submitted in confidence to the State Medical Society for its approval, and until such approval is given this Society gives no publicity to the survey or its findings. It is hoped and desired that the medical society will publish the report in its official journal or otherwise after it has accepted it in order that it may be available to all its members and others interested in the work.

To date Statewide surveys have been made in St. Louis, Mo., Colorado, Iowa, Kansas, Wisconsin, and Minnesota. Invitations have been received from Missouri and Nebraska.

Sincerely,

F. L. RECTOR, M. D., *Field Representative.*

ADVISORY COMMITTEE TO THE WOMEN'S AUXILIARY

During the year just closed, the duties of the Advisory Committee to the Women's Auxiliary have not been arduous but have been exceedingly pleasant.

The members of the Committee have met informally with various Auxiliary groups, principally at dinner meetings. While we have not been called upon for any formal action, we have all acted informally as advisers on numerous occasions, but must confess that we have learned much more from the activities of the Auxiliary last year than we have been able to instruct, teach or advise.

The Michigan State Medical Society is to be congratulated upon the zeal, interest and progressiveness of its Auxiliary as a state organization, in county units, and as individuals.

Respectively submitted,

J. M. ROBB,
T. H. HEAVENRICH,
LOUIS J. HIRSHMAN, *Chairman.*

COMMITTEE ON THERAPEUTICS

Your Committee on Therapeutics has made a study of the prescribing of drugs and medicines, both in the hospitals and elsewhere, in this state, the results of which are to be published by the members of the committee in a series of three articles in the JOURNAL, by Drs. Poos, Shaw, and Louis Le Fevre, and we wish that you accept these articles as our report for the year.

The salient points in these papers, which the committee submits for your study and consideration, are as follows:

1. There is too much prescribing of well advertised, high priced pharmaceuticals, especially among the younger members of the profession.
2. Many of the proprietary preparations advertised to the profession and to the public, and sold under trade-marked names, are duplicates of preparations already listed in the United States Pharmacopœa or the National Formulary which sell at retail at about one-third the price of the trade-marked products.
3. The Committee feels that the medical profession of this state should be ever on its guard against lending itself to the exploitation of the public by certain drug houses, whose method is to market an old National Formulary or United States Pharmacopœa preparation under a trade-marked name, introduce it to the profession by means of free samples and a recommendation for its therapeutic application, and, after the doctors have distributed enough of the free samples to their patients, advertise the drug to the public at three times the drug store price for the United States Pharmacopœa preparation, usually with the suggestion that as this is what the doctors are prescribing, why not get it from the drug store direct and save a doctor's fee.
4. The hospitals of this state are put to an expense which they cannot afford because various physicians on their staffs prescribe the same drug under several different trade names, and by the desire of some physicians to try out each old drug that the pharmaceutical houses put out under a new name.
5. The committee recommends, that in the interests of the education of the internes and resident physicians, each hospital draw up a formulary of drugs and preparations recommended for use in the hospital, and that the indiscriminate prescribing of drugs not in the formulary be discouraged.

LOUIS LE FEVRE, *Chairman.*

DELEGATES

NOTE: Names of Delegates are in capitals, Alternates in lower case type.

Alpena County
F. J. O'DONNELL
A. R. Miller

Barry County
M. R. KINDE
H. S. Wedel

Bay-Arenac-Iosco
L. F. FOSTER
E. S. Huckins

Berrien County
W. C. ELLET
John E. Ames

Branch County
A. G. HOLBROOK
R. L. Wade

Calhoun County
C. S. GORSLINE
A. T. HAFFORD
W. L. Godfrey
A. D. Sharp
Cass County
W. C. McCUTCHEON
E. M. Cunningham
Chippewa-Mackinac
B. T. MONTGOMERY
F. C. Bandy
Clinton County
D. W. Hart
F. D. Richards
Delta County
J. J. WALCH
J. W. Towey
Dickinson-Iron
W. H. ALEXANDER
W. J. KOFMEHL
W. H. Huron
Eaton County
A. G. SHEETS
C. S. Sackett
Genesee County
GEORGE CURRY
CARL MOLL
FRANK REEDER
Donald Wright
Max Burnell
H. E. Randall
Gogebic County
W. E. TEW
Grand-Traverse-Leelanau
E. F. SLADEK
J. W. Gauntlett
Gratiot-Isabella-Clare
T. J. CARNEY
W. L. Harrigan
Hillsdale County
C. J. POPPEN
B. F. Green
Houghton County
GEORGE M. WALDIE
T. P. Wickliffe
Huron-Sanilac County
DAVID D. McNAUGHTON
W. B. Holdship
Ingham County
L. G. CHRISTIAN
KARL BRUCKER
C. L. F. DeVries
H. C. Rockwell
Ionia-Montcalm County
LLOYD S. DUNKIN
A. I. Laughlin
Jackson County
PHILLIP RILEY
JAMES O'MEARA
Corwin Clarke
H. A. Brown
Kalamazoo, Allegan and Van Buren
F. T. ANDREWS
C. TEN HOUTEN
R. G. COOK
G. M. Riley
D. E. Squires
E. G. Low
Kent County
A. V. WENGER
H. J. PYLE
R. H. DENHAM
V. M. MOORE
C. F. SNAPP
G. H. Southwick
Leon Sevey
J. C. Foshee
M. E. Roberts
A. J. Baker

Lapeer County
H. M. BEST
J. O'Brien
Lenawee County
O. WHITNEY
A. W. Chase
Livingston County
HARRY G. HUNTINGTON
J. J. Hendren
Luce County
H. E. PERRY
E. H. Campbell
Macomb County
J. N. SCHER
G. F. Moore
Manistee County
A. A. McKAY
Stephen Fairbanks
Marquette-Alger County
VIVIAN VANDEVENTER
R. A. Burke
Mason County
L. W. SWITZER
Chas. A. Paukstis
Mecosta County
G. H. YEO
P. B. Kilmer
Menominee County
Midland County
J. H. SHERK
R. E. Rice
Monroe County
P. D. AMADON
D. C. Denman
Muskegon County
ROY H. HOLMES
Frank W. Garber
Newaygo County
A. C. TOMPSETT
H. R. Moore
Northern Michigan
FREDERICK C. MAYNE
Guy Conkle
Oakland County
ROBERT BAKER
CLIFFORD EKELUND
L. A. Farnham
Harold Furlong
Oceana County
WM. HEARD
Wm. M. Lemke
Otsego-Montmorency,
Crawford-Oscoda-Roscommon-Ogemaw
C. R. KEYPORT
F. Rigenberg
Ontonagon County
H. B. HOGUE
E. J. Evans
Ottawa County
A. E. STICKLEY
S. L. De Witt
Saginaw County
G. H. FERGUSON
F. J. CADY
A. R. Ernst
Schoolcraft County
DONALD ROSS
A. R. Tucker
Shiawassee County
I. W. GREENE
W. B. Fillinger
St. Clair County
A. L. CALLERY
T. E. DeGurse
St. Joseph County
R. A. SPRINGER
Wexford County
W. J. SMITH
J. F. Gruber

Tuscola County
J. G. MAURER
W. P. Petrie
Washtenaw County
JOHN WESSINGER
DEAN MYERS
A. C. Kerlikowski
S. L. La Fever
Wayne County
J. M. ROBB
A. W. BLAIN
WM. J. CASSIDY
R. H. PINO
H. W. YATES
G. C. PENBERTHY
A. E. CATHERWOOD
R. M. McKEAN
L. J. HIRSCHMAN
J. L. CHESTER
H. F. DIBBLE
C. F. BRUNK
H. W. PLAGGEMEYER
GEORGE KAMPERMAN
W. R. CLINTON
L. J. GARIEPY
S. A. FLAHERTY
A. P. BIDDLE
D. I. SUGAR
S. W. INSLEY
L. O. GEIB
E. D. SPALDING
L. T. HENDERSON
H. A. LUCE
W. D. BARRETT
E. C. Baumgarten
C. K. Hasley
B. C. Lockwood
L. J. Morand
Wm. J. Stapleton, Jr.
C. E. Dutchess
Wm. A. Evans
Wm. S. Reveno
R. Lee Laird
Roger V. Walker
C. E. Lemmon
H. W. Pierce
H. L. Clark
M. H. Hoffmann
J. A. Kasper
A. H. Whittaker
S. P. L'Esperance
R. S. Goux
B. U. Estabrook
C. S. Ratigan
B. L. Connelly
F. B. Burke
I. A. Hookey
I. C. Kenning
C. K. Valade

CREDENTIALS COMMITTEE

L. T. Henderson, Chairman—Wayne County
A. T. Hafford—Calhoun County
C. Ten Houten—Kalamazoo County
L. W. Switzer—Mason County
A. E. Stickley—Ottawa County

This committee will receive and pass upon Delegate's credentials. Delegates must secure their credentials from their County Secretary.

GENERAL INFORMATION

1. Time. Battle Creek is on daylight saving time.
2. Hotels

Kellogg Hotel—Headquarters for officers and delegates and invited guests.

Post Tavern—
1. General Headquarters.
2. Ladies' Auxiliary Headquarters. Slogan "Meet Me on the Bridge."
3. Entertainment Tuesday, September 11, 9:30 P. M.
4. Big Night, Wednesday, September 12. Informal. No big banquet or speaker.

Hotel Rates

Kellogg, 120 rooms. Single, $2.50 to $3.50; double, $4.00 and up.

Post Tavern, 240 rooms. Single, $2.50 and up; double, $4.00 and up.

Clifton, 74 rooms. Single, $1.00 and $1.50; double, $1.50 and $2.50.

La Salle, 35 rooms. Single, $1.50 and $2.00; double, $2.00 and $3.00.

La Verne, 30 rooms. Single, $1.50 and $2.00; double, $2.00 and $3.00.

Please write direct to hotel for reservations.

There will also be private homes available, write to Chairman, Dr. R. C. Winslow.

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3. Scientific Sessions

The several Scientific Sections will convene on Wednesday morning from 9:00 to 11:00 A. M. and on Thursday morning from 9:00 to 12:00 A. M.

All the Sections will combine into a general meeting at 1:15 P. M. on Wednesday and Thursday afternoons.

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4. Local Committees

General Chairman—Wilfrid Haughey.

Meeting Places—C. S. Gorsline, Chairman, H. M. Lowe, L. P. Shipp, Gertrude Johnson, and C. C. Landon.

Hotels—R. C. Winslow, Chairman, J. E. Cooper, F. LaFrance, W. M. Putman, E. Van Camp, and Bertha Mosher.

Entertainment—C. W. Brainard, Chairman, C. R. Hills, B. G. Holtom, F. R. Walters, M. A. Mortenson, and Estella Norman.

Automobiles and Parking—A. M. Giddings, Chairman, W. R. Chenoweth, J. W. Gething, Karl Zinn, and S. E. Barnhart.

Section Monitors—N. H. Amos, Chairman, Phillip Bonifer, R. H. Fraser, T. K. Kolvoord, Stanley Lowe, and L. E. Varity.

Guests and Speakers—H. F. Becker, Chairman, H. Hanson, R. Stiefel, W. O. Upson, and W. M. Dodge.

Registration—Russell Musard, Chairman, Carl G. Wencke, W. M. Dugan, A. W. Nelson, and F. G. Melges.

Finance—A. E. MacGregor, Chairman, S. Pritchard, G. M. Byington, J. E. Rosenfeld, E. L. Eggleston, and C. E. Stewart.

Public Health Exhibit—A. A. Hoyt, Chairman, R. H. Baribeau, W. F. Martin, M. J. Capron, C. G. Fahndrich, W. L. Howard, and Arthur Humphries.

Reception—R. D. Sleight, Chairman, H. R. Allen, A. H. Bennett, J. A. Elliott, W. L. Godfrey, E. E. Hancock, E. L. Hanson, W. H. Haughey, J. J. Holes, Carrie S. Kellogg, Kenneth Lowe, C. G. Morris, Adonis Patterson, W. A. Royer, R. H. Steinbach, N. O. Byland, J. K. M. Gordon, C. W. Heald, John Heald, L. Jesperson, W. B. Lewis, A. B. Olson, W. H. Riley, Paul Roth, W E. Vandervoort, Bruce Whyte, J. H. Kellogg, Nelson Abbott, G. W. Behan, Herman Beuker, E. M. Chauncey, S. K. Church,

Robert K. Curry, E. Clare Derickson, G. B. Gesner, George C. Hafford, A. T. Hafford, C. E. Hale, Louis M. Henderson, Phillip M. Henderson, H. A. Herzer, O. Johnson, K. B. Keeler, L. N. McNair, J. Roberts, and A. D. Sharp.

5. Registration

Registration and Information Booths will be located in the Gymnasium in the Auditorium.

6. Commercial and Scientific Exhibits

These will be located in the spacious gymnasium in the Auditorium.

Annual Meeting Exhibitors

1. The G. A. Ingram Co.
2. The G. A. Ingram Co.
3. The G. A. Ingram Co.
4. The G. A. Ingram Co.
5. Hack Shoe Co.
10. Abbott Laboratories.
11 The Kellogg Co. Home Economics Dept.
12. Horlick's Malted Milk.
13. General Elec. X-Ray Corp.
14. Petrolagar Laboratories.
15. Gerbers.
16. The J. F. Hartz Co.
17. The Lakeside Laboratories.
18. American Hospital Supply Corp.
19. The Medical Protective Co.
21. H. G. Fischer Co.
22. L. O. Geib
23. Physiotheraphy Equipment Co.
24. R. B. Davis Co.
25. A. Kuhlman & Co.
26 Universal Products Co.
28. Battle Creek Food Co.
30. Merck & Co.
31. Mead Johnson & Co.

7. President's Address

The President will deliver his annual address at the General Session Wednesday morning at 11:00 A. M.

8. Section Monitors

N. H. Amos, Chairman

Section on Medicine

L. E. Verity
L. P. Shipp

Section on Surgery

R. A. Stiefel
H. Hanson

Section on Gynecology

F. J. Melges
F. La France

Section on Opthalmology and Otolaryngology

R. H. Fraser
Karl Zinn

Section on Pediatrics

Stanley Lowe
Philip Bonifer

Section on Dermatology

T. K. Kolvoord
W. R. Chynoweth

9. **Patronize your exhibitors.**
10. **Watch Bulletin Boards.**
11. **Be sure to register and secure hand program with further announcements.**

Plan To Attend This Annual Meeting

CONTRIBUTED ARTICLES

TREATMENT OF INTESTINAL OBSTRUCTION*

C. R. DAVIS, M.D., A.B.†
DETROIT, MICHIGAN

The treatment of intestinal obstruction is surgical. The time for operation is soon after the onset of symptoms. The type of operation depends upon the condition which causes the obstruction. To these three phases in the treatment of intestinal obstruction must be added the preoperative treatment and the postoperative treatment.

Because it is so generally admitted that intestinal obstruction should be treated surgically, I shall say no more about that phase of the treatment.

That operation should be done as soon as possible after the onset of symptoms is also admitted generally. Many physicians, however, do not appreciate how promptly the operation should be done as they appreciate that the treatment should be surgical. The demand for early relief of intestinal obstruction is exceeded only by the demand for early relief of obstruction of the respiratory passages and is equalled only by the demand for early operation in perforated gastric ulcer. With few exceptions the necessity for relief of intestinal obstruction is more urgent than the necessity for the arrest of hemorrhage.

Some remarks and statistics about how soon after the onset of symptoms of intestinal obstruction operation should be done may not be amiss. According to Drs. H. E. Veldman and Frederick C. Warnshuis[8] the mortality is as follows:

	Number of Cases	*Lived*	*Died*
1 to 12 hours	12	8	4
13 to 24 hours	15	8	7
25 to 48 hours	17	9	8
49 to 72 hours	8	3	5
4 to 7 days	18	8	10

These figures indicate that the operation should be done within twelve hours. Dr. Wm. B. Holden[3] had a mortality of 26 per cent in referred cases and five and one-sixth per cent in non-referred cases and believes that an early operation in the hands of a novice is better than a late operation in the hands of an expert. He believes operation should be done within twelve to twenty-four hours after the onset of symptoms. The higher mortality in referred cases was due undoubtedly to the fact that time was lost because the patient had to wait for the two physicians in turn, first the family physician and then the surgeon. Time was saved in the non-referred cases because one physician had been eliminated. At least, these were my conclusions when I reviewed the report in which he has stated the results in his 119 referred cases and fifty-eight non-referred cases. Dr. Alton Ochsner[6] believes that intestinal obstruction should be operated upon within twelve hours. Bailey[1] says that the operation should be done within twelve to twenty-four hours.

In my own series of sixty-four cases there were twenty-four deaths, which makes the mortality 31.24 per cent. The twenty-four patients who died either had multiple obstruction or had been sick longer than six hours. The forty patients who recovered either had single obstruction or had been sick less than six hours. These figures indicate that if we operate upon patients with intestinal obstruction early and if the obstruction is single, the mortality should be low instead of high, although the average mortality is nearly 50 per cent. I believe that the most important single item in the treatment of intestinal obstruction is early operation. I can see no reason for waiting twelve to twenty-four hours. In fact, after I had reviewed my own cases, I decided that the operation should be done within six hours after the onset of symptoms.

Little preoperative attention is needed in

*Read at the November, 1932, staff meeting of the Delray General Hospital.

†Dr. C. R. Davis is a graduate of Ouachita College, Arkansas, Cornell University, New York City, M.D., 1908. He served as interne and House Surgeon at the Presbyterian Hospital in New York City. He is attending Surgeon, Grace Hospital (Miriam Memorial Branch) and Chief of the Surgical Staff of Parkside Hospital, Detroit.

intestinal obstruction. Lavage by diminishing the size of the stomach and consequently decreasing the intra-abdominal contents facilitates operation. One-quarter grain of morphine sulfate and 1/150 grains of atropine sulfate should be given hypodermically just before the operation but not earlier. The first dose of morphine should not be given until the patient is in the hospital and ready for operation. Although it is the duty of the famly physician to relieve suffering and comfort the sick, his chief duty in intestinal obstruction is to save the life of his patient. To do this he must let the patient suffer until just before the operation. Suffering, in turn, will advance the hour for the operation. Transfusion of blood, infusion and hypodermoclysis of sodium chloride solution should be kept in mind and used before operation when necessary.

The type of operation to be used in intestinal obstruction depends upon the condition which causes the obstruction. The more accurate the diagnosis, the better the operation can be planned; also the incision can be placed in a more favorable location. Before discussing the operations which are adaptable to the specific conditions which cause the obstruction, I shall discuss procedures which are applicable to obstruction in general.

The first detail which will command attention is anesthesia. Dr. A. I. McKinnon[5] has said that for the relief of intestinal obstruction in general peritonitis, and this may be applicable to other types of obstruction, the operation should be done under local anesthesia, because local anesthesia does not hinder peristalsis. When a general anesthetic is used, two days are required for the intestines to regain their tone and expel their contents. I am sure that you will admit that it is difficult to empty the bowels during the first two days after any operation in which a general anesthetic has been used. In intestinal obstruction, if immediate evacuation of the intestinal contents can be obtained, the patient has a better chance to live. Spinal anesthesia can also be used in many patients successfully because spinal anesthesia as well as local anesthesia does not stop peristalsis; therefore, both local and spinal anesthesia are better for intestinal obstruction than general anesthesia, which does interfere with peristalsis. Of course, gas and ether must frequently be resorted to, and are used routinely by some men, but it is my opinion that they should be used only in cases not suitable for local or spinal anesthesia. It is better to do as much of the operation as possible under local or spinal anesthesia in suitable cases and to add general anesthesia when the local or spinal anesthesia is not satisfactory.

A second detail in the treatment of intestinal obstruction is the incision. When the location of the cause of the obstruction cannot be determined, a general exploration is needed. A paramedian incision just next to the umbilicus permits the surgeon to make a very satisfactory exploration and does little damage to the nerve supply of the abdominal wall. This incision should extend from one-third of its length above the level of the umbilicus to two-thirds of its length below the level of the umbilicus. If the site of the obstruction can be determined before the operation is begun, an incision which permits the best approach for the relief of the condition which causes the obstruction should be used.

Another general item in operating for intestinal obstruction is the handling of the bowels. If the obstruction is sought for by following the collapsed bowel up, and if relief of the obstruction can be effected easily, evisceration may not be necessary, but evisceration is frequently the most rapid and best method for locating and relieving obstruction; it is even preferred as a routine procedure by some. When distended bowel only presents as the abdomen is opened, the best point to begin the search for the obstruction is the cecum. If the ileum and cecum are dilated, the obstruction is below the cecum. If the ileum is collapsed, the obstruction is above the cecum. When evisceration must be done the bowels should be protected by hot packs. The evisceration of the bowels into a rubber bag surrounded by hot compresses as recommended in Lewis' Surgery[4] should be an excellent procedure. I have never followed this procedure but am thinking seriously of doing so, because the rubber will traumatize the peritoneum less than gauze when the bowels are wrapped with gauze pads.

Another procedure applicable to all kinds of intestinal obstruction is enterostomy. An enterostomy may be either one of two types: in one type of so-called enterostomy which is really an enterotomy, the bowel is closed im-

mediately after the intestinal contents have been evacuated; in the other type of enterostomy, which is a true enterostomy, the tube is left in the bowel for from several to twelve days until the patient's recovery is well advanced, or until the operation for the relief of the obstruction can be done. An additional guide for the removal of the tube from the bowel is the foul smelling fluid. When the fluid which escapes from the bowel has lost its peculiar foul smell, the tube may be removed, usually on the seventh to the tenth day. The latter type of enterostomy is done to save the life of a patient who is extremely ill and to tide him over until the operation for the relief of the obstruction can be done safely.

Double enterostomy, which Bailey credits D. P. D. Wilkie with having done, consists in doing one enterostomy above the obstruction and a second one below the obstruction; the two tubes from the two openings were then connected with a glass connecting tube, and the bowel contents were permitted to follow their normal course. The double enterostomy has been used when the first opening in the bowel was made too low. Precaution should be taken with every enterostomy against the tube being pulled out or slipping out. Slipping out can be prevented by tying two skin sutures around the tube or by strapping the tube to the abdomen with adhesive tape so that any pull on the tube is stopped by the stitches or the adhesive tape.

Dr. Holden[3] is an advocate of the enterostomy which is closed at once. He does the enterostomy in the lowest part of the obstruction and milks the contents of the bowel through a tube temporarily inserted into this opening. This milking is done rapidly by drawing the bowel from above down between compressed fingers which have been coated with vaseline. In order to empty the bowel contents thoroughly, the milking may be done more than once, if necessary. The report of this procedure by Dr. Holden at a meeting of the American College of Surgeons in Chicago was very attentively although questionably received. He attributed his low mortality of 26 per cent in referred cases and five and one-sixth per cent in nonreferred cases to this procedure, although this low mortality may be owing to the fact that he operated early, the importance of which he fully appreciates also. I tried this technic on one patient who had a large amount of strangulated bowel in a ventral hernia. I was forced to use the procedure because I could not replace the bowels in the abdomen otherwise. The patient, who was seventy-two years old, had been sick for two days. The postoperative comfort in this patient was so out of proportion to her preoperative condition that I was very much impressed by the feasibility of the procedure. Although the patient died, the tendency toward recovery during the two days she lived was far beyond my expectation. I feel that Dr. Holden's procedure is worthy of consideration and trial, and intend to use it whenever the bowels are loaded with toxic contents as they so often are. Although Dr. Holden's procedure is not recommended in cases of general peritonitis, Dr. J. W. Kennedy, in a paper read to the Wayne County Medical Society several years ago, attributed a very low mortality in cases of peritonitis to stripping the bowels in a manner similar to Dr. Holden's milking but without the enterostomy.

The second type of enterostomy which is the true enterostomy and which is allowed to remain open is the one which is done as a temporary measure to prolong the life of the patient until such time as his condition will permit a direct attack upon the cause of the obstruction. It is also done in cases of general peritonitis, in which disease the cause of death is considered to be intestinal obstruction. Dr. McKinnon[5] believes that a high jejunostomy is the enterostomy of choice. Because obstruction is accompanied by reversed peristalsis and eventually fecal vomiting, his argument is certainly logical, for then the enterostomy opening will be at the end of the reversed intestinal stream instead of at the beginning of it as in cases where the enterostomy is placed low. The enterostomy is specially applicable in peritonitis cases in which no other operative procedures may be undertaken. Advocates of low enterostomy may be correct also because if an enterostomy is done at the lowest part of the obstruction, the obstruction will be relieved, and the contents of the bowels will be permitted to resume their normal course downward.

Dr. Alton Ochsner[6] quoted Van Beuren and Smith as having reported a higher mortality in cases treated by enterostomy than in cases treated without enterostomy. In

those cases the enterostomy was probably done in very severe and advanced cases only, because men who resort to enterostomy early, as is done commonly at the present time, have reported a lower mortality in cases in which enterostomy has been done than in cases in which enterostomy has not been done. If enterostomy is done in the presence of gangrene, and the gangrenous bowel is not resected, the patient, of course, will die.

When gangrene of the bowel is present, the gangrenous bowel either must be invaginated or resected. If the gangrenous portion of bowel is less than three inches, it may be invaginated with mattress sutures. If resection must be done, the mistake of resecting too little bowel should not be made because it is just as easy to resect two feet as to resect two inches. The greatest difficulty in dealing with gangrenous bowel is the recognition of viability; and it is very important that viability be recognized, because viable bowel need not be resected; its replacement in the abdomen is all that is required. A viable bowel has a glistening peritoneal covering, the black color of the strangulated bowel will change to red when hot towels are applied to it, muscular contractions of the bowel will occur and should be distinct, and the blood vessels leading to this portion of the bowels will be pulsating. The point of constriction of the bowel in an obstruction is the point most likely to be non-viable.

After a resection of the small bowel has been done, an end-to-end, a side-to-side, or an end-to-side anastomosis may be used, but after a resection of the large bowel has been done, and if the anastomosis of the remaining bowel is of the large and small bowel, or of large bowel alone, and end-to-side, or an end-to-end anastomosis is preferred beyond the cecum; because the feces in the small bowel are liquid and the feces of the large bowel are solid beyond the middle of the transverse colon, trouble will result if a side-to-side anastomosis is done; the solid feces will accumulate in the blind pouch which is formed when a side-to-side anastomosis has been done, and this accumulation of hard feces causes distress. In the ascending colon and the first half of the transverse colon the fecal contents are more likely to be liquid or semi-solid, and the objection to the side-to-side anastomosis does not hold if the anastomosis is done at the cecum. When bowel has been resected, the mesentery should not be sewed together because vessels may be stuck, and the resulting hemorrhage add to the dangers of the operation. The free margins of the mesentery should be clamped first and then tied together.

In discussing the adaptation of the operation to the condition which causes the obstruction, I shall consider the treatment of intestinal obstruction under two general groups in which I have found a great spread in mortality rates. One group is the single obstruction, and the other group is multiple obstruction. In single obstruction there is only one point of obstruction; in multiple obstruction there are several points of obstruction. In single obstruction there are a variety of conditions which cause obstruction, and they are as follows: adhesions, enteroliths, gall stones, foreign bodies, fecal impaction, especially rectal, hernia, volvulus, intussusception, diverticula, including Meckel's diverticulum, inflammatory causes and abscesses, megacolon, mesenteric thrombosis, and congenital obstruction, chief of which is imperforate anus. In multiple obstruction, the causes of obstruction may be adhesions, either acute or chronic, ventral, incisional, and umbilical herniæ, new growths, and inflammatory causes, as tuberculosis and abscess.

A simple single obstruction caused by a band or adhesions requires division of the obstructing band and nothing more. An exception to this rule occurs in obstruction of the duodenum. If the cause of the obstruction cannot be removed, a gastrojejunostomy, or a duodenojejunostomy may be necessary. Volvulus, which can be relieved by untwisting the bowel, may be included in the group of single obstruction due to adhesions or bands so far as treatment is concerned. In volvulus, it may be necessary to attach the mesentery to the abdominal wall to prevent a recurrence. Of course, in removing the causes of the obstruction, the surgeon must be guided by what has already been said under conditions applicable to all forms of obstruction. In volvulus of the sigmoid some men have been able to relieve the volvulus by passing a rectal tube into the loop of obstructed bowel with the aid of the sigmoidoscope.

Another type of simple obstruction is that

caused by material inside the bowel, as enteroliths, gall stones, fecal impaction, and foreign bodies. In this form of obstruction, an enterotomy with removal of the foreign body effects the cure. If the fecal impaction is in the rectum, the fecal material may be removed with the finger or a dessert spoon.

Obstructions caused by diverticula, especially Meckel's diverticulum, require relief of the obstruction first and removal of the diverticulum if the condition of the patient will justify it.

Intussusception is a class by itself. If gangrene is not present, a reduction must be attempted by pushing on the intussusceptum and teasing it back. Reduction as a rule can be accomplished in this manner. A few sutures attaching the bowel near the beginning of the intussusception to the anterior abdominal wall will prevent a recurrence; some men, however, question success by this procedure, think it is not necessary, and even prefer not doing it. Occasionally the constricting portion of the bowel will require incising longitudinally opposite the mesenteric border. It may be necessary to incise only the peritoneal and muscular coats which avoids contaminating the peritoneal cavity with intestinal bacteria. When an incision has been used, it, of course, must be repaired. Intestinal growths, frequently the cause of intussusception, must be removed, when present, by enterotomy, or the obstruction will recur. A cathartic should not be given to a patient whose intussusception has just been reduced because it might recur immediately. If gangrene of the bowel is present, resection must be done.

In resection of bowel in intussusception a special method of resection appears highly appropriate although I have not tried it. Maunselles'[1] method of resection is as follows: sew the entering bowel to the ensheathing bowel with a few interrupted sutures; cut the ensheathing bowel longitudinally, pull out the apex of the intussusceptum, apply traction sutures to the portion of the bowel to be left behind, and cut off the apex of the intussusceptum. Then suture the two layers of bowel together with a buttonhole stitch and close the longitudinal opening in the intusscipiens.

The treatment of obstruction due to hernia is well known. The neck of the sac which causes the obstruction frequently must be incised before the obstructed bowel can be freed. In retroperitoneal hernia the anatomy of the blood supply about the opening must be borne in mind so that no vessel which supplies bowel is cut, if the neck of the sac requires cutting. If the constricting neck cannot be cut, aspiration of the contents of the obstructed bowel may permit a reduction of the hernia. After the bowel has been freed, it should be pulled out so that the constricted portion may be examined for viability. A fecal odor in the sac is conclusive evidence of gangrene. If the patient's condition is bad, the damaged portion of the bowel may be left open as an enterostomy and repair of the hernia left undone. The open ends of the bowel may be united later. In very bad cases the two loops of bowel may be joined by a lateral anastomosis and the gangrenous loops outside of the abdominal cavity left untouched for a couple of days, and then the bowel may be excised and the ends of the bowel closed. If a perforated bowel has slipped back into the abdomen, a second incision, either a rectus or a paramedial incision, should be made if the hernia is inguinal or femoral, and the damaged bowel should be disposed of according to indications. Strangulated omentum should be excised. Catheterization should be done in strangulated femoral hernia so that the bladder may not be damaged during the operation by being in the field of operation. In femoral hernia the upper operation, above Poupart's ligament, should be done because the bowel cannot be dealt with properly in the lower operation in which the incision is placed over the swelling. Also, the lower operation does not permit handling of the bowel if the obstruction should become reduced before the bowel has been inspected. Bailey[1] credits Lotheisen with an excellent description of operating above Poupart's ligament. This paragraph on hernia cannot be closed without reference to diaphragmatic hernia, a condition which may be encountered at any time and which must be kept in mind. A complication peculiar to one form of hernia is cellulitis following umbilical hernia, which can be avoided by draining the dead space for a day or two.

Again, intestinal obstruction may be caused by inflammatory conditions. The most common inflammation occurring in the abdomen is peritonitis. It is in this type of inflammation that enterostomy is most frequently used. In obstruction due to abscess

the abscess must be drained, adhesions separated, and an enterostomy done according to the indications. In tuberculous inflammation resection of the bowel must sometimes be done. It is questionable which type of obstruction can tax the ability of the surgeon the most.

Mesenteric thrombosis causes obstruction. Little can be done other than resection of the gangrenous bowel. The gangrenous mesentery must also be excised if peritonitis is to be avoided. After the ends of the bowel have been united, a cecostomy or ileocolostomy should be done.

Obstruction due to carcinoma must be relieved either by colostomy or by enterostomy. The carcinoma should be removed several weeks later. Exploration should not be done because the mere passing of the hand over the bowel is followed occasionally by the escape of intestinal bacteria from the thinned and distended loops of the obstructed bowel. I have heard this statement made at the Mayo Clinic, and my experience leads me to believe that their observations are correct.

Ileostomy for carcinoma of the ascending colon and hepatic flexure, cecostomy for the transverse colon, and colostomy on the left side for carcinoma of the rectum or sigmoid are generally considered proper procedures. A transverse colostomy may be successful because the contents of the bowel here are soft whereas a sigmoidostomy may fail because of an accumulation of the hardened feces there. Because of this choice for the site of the intestinal opening, in no other type of obstruction is it more important that an accurate diagnosis of the location of the obstruction be determined before operation.

Acute dilation of the colon occurs occasionally and is frequently associated with gall stones. In my patients who had this condition gall stones were present. In one of them the gall bladder had ruptured, and an abscess was present under the liver. This type of obstruction, for it will be operated on as such, can be cured by having an assistant pass a long stomach tube rectally into the colon, while the surgeon guides it toward the cecum with the intra-abdominal hand. The tube should be left in from a few days to two weeks, at which time it may be removed. This procedure has been recommended by Dr. W. J. Mayo and was used successfully in one of my cases.

I shall not discuss megacolon and Hirschsprung's disease because they are not true obstructions and will seldom be diagnosed as obstructions. Furthermore, they are not incompatible with life. They should be kept in mind, however.

One important congenital type of obstruction may confront the surgeon at any time. It is the imperforate anus. If there is a bulging at the dimple which marks the site of the anus, a needle or trocar may be introduced not deeper than half an inch. If meconium is obtained, the septum may be incised; the mucosa and skin should be united by sutures. If meconium is not obtained, a colostomy, which may be left for life, should be done.

The most serious type of obstruction is multiple obstruction in which several loops of bowel are obstructed. This generally occurs after previous operations with resulting adhesions, or in incisional hernias, or in umbilical hernias. In any of these conditions several loops of bowel may be obstructed; usually the obstructed loops are close together, but there may be considerable areas of normal bowel between the obstructed portions. Frequently adhesions are found also in the strangulated portions of hernias. In this type of obstruction my highest mortality has occurred, 54.16 per cent. Some surgeons have said that obstruction due to adhesions following a previous operation has a lower mortality because the scar helps in making an early diagnosis. These surgeons have not separated the cases into the two groups, single obstruction, and multiple obstruction; consequently, their better results in obstruction due to adhesions may have been because their patients had single obstruction only and not multiple obstruction. Upon patients who had multiple obstruction I have tried enterostomy for relief of obstruction, I have tried Holden's method of evacuating the contents of the bowel, and I have tried simple relief of the obstructed portions, but none of these procedures has proved satisfactory. The mortality rate has remained high. If obstruction cannot be prevented because a patient will not permit a hernia to be repaired until obstruction occurs or because adhesions cannot be prevented, some more radical procedure must be followed in the handling of multiple obstruction if the mortality rate is to be lowered.

I am very much impressed by a report of

Drs. James C. Owings and Iran H. Smith[7] who recommend massive excision of the obstructed bowel and believe that excision of the entire mass of obstructed bowel will shorten the operation and give the patient a better chance for recovery. Ten or eleven feet of bowel may be resected safely. The safe point for resection is at the site of marked contraction. The badly damaged portion of the bowel with its toxic contents will then be gone. This method I propose to try in appropriate cases. Dr. William B. Holden[3] did an entero-enterostomy or entero-anastomosis in one patient who had "nonstrangulated, obstructed, adherent coils of bowel" and regrets that he did not use the same procedure on two other patients.

The postoperative treatment should be supportive and evacuative. The treatment of postoperative shock can best be combated by giving dextrose intravenously in 5 to 10 per cent solution.[9] One thousand c.c. may be given slowly during the course of an hour. The solution should be kept at 110 degrees throughout the infusion. Insulin should be given subcutaneously at the rate of one unit (U-20) to 3 grams of dextrose. This amounts to 33 units of insulin for 1,000 c.c. of 10 per cent glucose. "The total amount of insulin is given in two equally divided doses, one fifteen minutes after the beginning of the infusion and the second at the end of the infusion." This may be repeated in four hours if necessary. I have tried giving the insulin intravenously with the glucose but am not prepared to report approval at present. Intravenous glucose two or three times a day without insulin is a very excellent adjunct in the treatment of obstruction with or without shock. Continuous intravenous infusions of 5 to 10 per cent glucose solution at the rate of 150 c.c. to 200 c.c. per hour is very excellent. Full utilization of the glucose can be obtained by giving insulin as follows: Give insulin into tube according to color reactions and test urine every four hours for sugar. Blue—none; green—5 units; yellow—10 units; orange—15 units; brown or red—20 units.

This procedure also takes care of the next most important item in postoperative treatment, which is the maintenance of body fluids. The best method for introducing salines is by hypodermoclysis. About 3,000 to 4,000 c.c. per day is sufficient in the average case. This has been stressed by many writers, and its importance has been recently forcibly reëmphasized by Dr. Coller.[2] The severe vomiting in intestinal obstruction rapidly reduces the blood chlorides, but the blood chlorides can be replaced by saline so readily that I feel that routine blood chloride examinations are not necessary even though proper. The simplest guide for the intake of fluid is the tongue. A dry tongue means that the patient is not getting enough fluid. An exception to this rule is a patient who is breathing heavily and rapidly with the mouth open. If the tongue is dry on 3,000 c.c. of fluid a day, the patient should receive 4,000 c.c.; and if the tongue is dry on 4,000 c.c. a day, he should receive 5,000 c.c. The need for fluid under the skin is especially important when a high enterostomy has been done because the amount of fluid and chlorides drained through this enterostomy are greater and must be replaced. Outside of damaging the heart by a sudden introduction of too much fluid, there is little danger of giving too much salt solution. Hypodermoclysis should be kept up until the patient is able to take by mouth sufficient water, food, and drink to equal the amount of fluid which he has been receiving by other methods. Many men advise proctoclysis routinely, but because of the difficulty in knowing accurately the fluid intake, I do not use proctoclysis. Furthermore, proctoclysis causes reversed peristalsis, and also causes the patient to be uncomfortable.

Another very important weapon in the postoperative treatment in intestinal obstruction is the use of the stomach tube. It is not only necessary that the bowels be drained of their toxic contents by relief of the obstruction and enterostomy, but it is necessary that the stomach be kept empty of all material regurgitated into it from the bowels. The use of the stomach tube should be started early and should continue until no further fluid can be obtained. This may require several days. Holden, however, claims that he seldom requires the use of a stomach tube after his method of evacuation of the bowel contents. The best stomach tube is the large one, although the Levine tube may be introduced and allowed to remain continuously for several days. When the returned fluid remains constantly clear and free of foul odor, the tube may be removed.

The use of intestinal stimulants such as pituitrin and eserine, of which eserine is the

most efficient, have never yielded highly satisfactory results in my hands, and their value is being questioned generally by recent writers. Recently, however, I have had some success with pitressin. Ten and 20 per cent solutions of sodium chloride have been found to stimulate the tone and contractility of the bowel more than drugs. As much as four to eighteen grams of sodium chloride per day can be used intravenously, says Dr. Alton Ochsner,[6] who gives credit to Hughson and Ecarff for this method of therapy. Ten c.c. of 10 per cent solution of sodium chloride may be given at each injection until four grams have been given in 24 hours. Lewis' Surgery says that sodium chloride may be given in an initial dose of one gram per kilogram of body weight.

I never hesitate to keep the patient comfortable with morphine, and I have never seen definite evidence of a case harmed by the use of it. I cannot see that it inhibits peristalsis. Some men not only agree with my opinion that morphine does not hinder peristalsis, but even say that it stimulates peristalsis and object to its use because of too much stimulation.

Feeding should be started as soon as the stomach can remain clean of secretions, which lack of vomiting and the stomach tube will demonstrate. In other words, feed when peristalsis has been reëstablished.

Although evacuation is an important item in the treatment, little need be said about it, especially if the bowel has been milked of its contents according to the method of Holden, who seldom gives cathartics and then only on the fourth or fifth day. I favor rest rather than activation. The bowels will frequently move spontaneously. As an item under evacuation, the urine should be watched.

Finally, I wish to emphasize again the time of operation as the most important feature in the treatment of intestinal obstruction. If the mortality is to be reduced, operation must be done early. When the diagnosis is certain, operation should be done immediately. When the diagnosis is doubtful, the operation should be done as soon as other conditions and diseases can be excluded by the various diagnostic methods used in arriving at a correct diagnosis. In intestinal obstruction it is perfectly proper to make a diagnosis with the knife.

BIBLIOGRAPHY

1. Bailey, Hamilton: Emergency Surgery, 1:143. Wm. Wood and Company, 1930.
2. Coller, Frederick A., and Maddock, W. J.: Dehydration attendant on surgical operation. Jour. A. M. A., 99: No. 11 (Sept. 10), 1932.
3. Holden, Wm. B.: Surgical treatment of acute intestinal obstruction. Surg., Gynec. and Obst., 50:184-192 (Jan.), 1930.
4. Lewis, Dean: Practice of Surgery: Intestinal obstruction or ileus—John A. Hartwell and Henry S. F. Cooper. W. F. Prior Company, Inc., Vol. VII, Chap. 7, 1-70. 1929.
5. McKinnon, A. I. Lincoln: Jejunostomy: A treatment of acute ileus and a preventive of postoperative ileus. Jour. A. M. A., 77: Part 1 (July 23), 1921.
6. Ochsner, Alton: Acute intestinal obstruction. Int. Surg. Digest, 12: No. 1 (July), 1931.
7. Owings, James C., and Smith, Iran H.: Massive resection in acute mechanical intestinal obstruction. Ann. Surg., 95:840 (June), 1932.
8. Veldman, Harold E., and Warnshuis, Fred C.: Intestinal obstruction. A review of 95 cases. Jour. M. S. M. S., 31: No. 6 (June), 1932.
9. Wade, Preston A.: Dextrose insulin treatment of shock. Jour. A. M. A., 90:1859 (June 9), 1928.

NEWER METHODS OF TREATMENT IN SYPHILIS OF CHILDHOOD

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The treatment of syphilis of childhood should be based on a broad knowledge of the pathological changes commonly produced by this disease in infancy, the duration of the infection, and a thorough knowledge of the drugs and methods available. Results of treatment will amply compensate for a thorough study of the pathology in each case. One must strive to design a method of treatment which is fitted to cover all the manifestations. The basic requirement for such an adaptation is a complete knowledge of the natural history and the evolution of the disease.

It is with this point in view that we will review briefly some of the main points in the evolution of the disease and bring out their bearing on a rational plan of treatment.

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The fetus is usually infected from the blood stream of the mother through the placenta into the fetal circulation. This may occur at any time during gestation. The older idea of conceptional syphilis (transmission through the sperm of a syphilitic father to the germplasm, and infection of the mother by the fetus) has been discarded since the question was thoroughly considered by a committee of the French Dermatological Society in 1920. The consensus of opinion now favors the maternal transmission as being practically the only possible mode of infection, still maintaining a small loophole for the possibility of paternal direct transmission in the granular resting forms of the spirochete.

Thus, we believe that the infection of the fetus early in life with a virulent organism will cause abortion usually after several months, for we must allow time for the infection in the fetus to pass through the various phases which we see in extrauterine life. The virulent spirochete enters the fetal circulation probably by direct penetration through the thin membrane separating the fetal and maternal circulations without the formation of a chancre at this point. Thus, we have no delay such as that caused by the formation of the local inoculation reaction in the acquired case. The infection progresses much as in syphilis d'emble, syphilis without chancre, as is seen in transfusion syphilis. Following this there is a period of quiescence during which time the spirochete is becoming accustomed to the new host, and multiplication in the blood stream goes on. During this time antibodies are being formed, both free in the blood stream and in the fixed tissues. A period of one to four months is required for the development of these antibodies to such a point that the local deposit of a few spirochetes in any region of the body will elicit a response which we recognize as secondary syphilis. These, of course, are not observed because the fetus is still in utero. Recurrent attacks of these allergic responses in the skin, gastro-intestinal tract, spleen, liver, meninges, etc., take place until most of the spirochetes are destroyed and all have disappeared from the blood stream. A few foci are usually left in the liver, brain, spinal cord, etc., in nonallergic or nonreacting tissue, where they become quiescent. This is the period of latency, and it is during this period that most syphilitic children are born. This is true heredosyphilis with no manifestations at birth. These children later develop snuffles, caused by a luetic osteomyelitis of the small bones of the nose, Parrot pseudoparalysis, interstitial keratitis, etc. The term latent period is used to cover the time from the end of the secondary responses until some evidence of late activity is seen.

Then we see an infection acquired probably three to five months before birth and manifesting itself as rhagades, pemphigus of the palms and soles, papular syphilide of buttocks, etc. In a third group of cases, we see children infected during passage through the birth canal. They show chancres soon after birth or secondary rashes similar to those seen in acquired cases.

During the latent period the organisms remain in a few non-responsive foci and occasionally a few get into the blood stream, gradually increasing the tissue and blood stream antibodies, until finally the reacting properties of the various tissues are at an extremely high point. Then at any time, due to trauma or without apparent cause, a single or few spirochetes may lodge in a hyperreactive tissue and we have the tremendous reaction to the minute organism, the gumma. It is probable that the tissue which reacts most during all these allergic phenomena is the reticulo-endothelial cells of the blood vessels. The reaction involves the vessels supplying the area and the response which we see is largely due to the loss of blood supply (Warthin[9]).

Destruction of tissue takes place only in the late or tertiary stage, and it is to the prevention of the development of these lesions that we must direct our treatment, not to the clearing up of a transitory early rash which will do the patient little harm. Energetic treatment is necessary early in the disease to prevent contagion only.

Broadly speaking, we see the complement fixing and precipitating substances of the blood serum following the same course in the inherited case as we do in the acquired case, keeping the above body responses in mind. Thus, the child born with early manifestations of the skin almost always has a strongly positive Wassermann or Kahn test. In early infected cases which have passed through the secondary stage and are born in a latent period, the above tests are often negative for three to four

weeks after delivery. The Wassermann usually becomes positive at the end of that time, and maintains a high percentage of positive readings for some months. The percentage of positive readings gradually decreases until puberty is reached, when about forty per cent are positive, about the same percentage as is found in acquired late latent cases.

Despite the multiplicity of gross changes seen in syphilis, the microscopic pathology is fairly uniform and the primary reaction is almost always the same. The primary change in the chancre is the swelling of the reticulo-endothelial cells with the rapid wandering in of mononuclears and plasma cells about the vessels. Thus the vessels are occluded, collateral vessels take up the load and they are in turn involved. This rapid perivascular reaction about many vessels in a small area is the change which gives the chancre its firm infiltration.

The local reaction in the secondary lesion is essentially the same as in the chancre except that the tissue reaction is much more active due to the allergic mechanism. The late manifestations begin like the primary and secondary lesions with the local reticulo-endothelial response. Then follows the typical perivascular mantling of plasma cells and lymphocytes. This is an evidence of a still more active allergic tissue response and involves much more tissue than even the secondary stage. The marked tissue reaction about the larger and deeper vessels causes a thrombosis with the production of anemic infarcts in the skin and probably other organs. Thus we have the destructive action of the later lesions.

The factor which determines whether or not the late manifestations seen in any case will be a gumma or a chronic interstitial luetic fibrosis is the size of the area supplied by the involved vessels.

The occlusion of superficial small vessels will cause a destruction of active parenchyma of the organ involved. The collateral circulation will be sufficient to rapidly absorb the destroyed tissue and replace it with fibrous tissue. In the gumma the major vessel is involved with loss of a large area. Lymphocytes wander in and we have a large inflammatory mass. Thus we see that the difference is only one of size, and is dependent on the type of vessel involved. We have felt that a proper appreciation of the above facts has been lacking in the planning of an adequate treatment for syphilis in many cases. Syphilis must be considered as a very slow, insidiously developing infection which is contagious but causes the host little permanent damage in its early stages. Only after a period of months or years late lesions occur which are permanently destructive.

The major considerations in the planning of treatment therefore are:

1. The prevention of contagion.
2. The protection of the patient against permanently destructive lesions which may incapacitate him in years to come.

A gross disregard for the slow development and latency of this disease is frequently encountered. Thus we see in an article by Atlee and Tyson[1] in the *American Journal of Diseases of Children,* recommending a short routine of treatment, the following sentence, "A greater number of patients will have to be treated and followed for a longer period of time to prove our point, namely, that this minimum of treatment started immediately after birth is sufficient to cure congenital syphilis in this symptomless stage, the equivalent probably of the early primary stage of the disease." They are recommending a grossly inadequate treatment based on their conclusions in a very few cases followed for only one to four years and based on a premise which is untenable when the evolution of this disease is understood. That is, that the early latent cases are as amenable to treatment as the sero-negative primary cases.

Adequate treatment as based on our knowledge of acquired cases should serve as a basis for the beginning of the discussion of treatment in inherited and congenital syphilis.

The United States Public Health Service Committee,[8] composed of six of the country's leading syphilologists, on treatment of syphilis states that in early acquired syphilis the treatment should consist of alternating courses of salvarsan and bismuth or mercury for one year without a rest following the reversal of the Wassermann.

In inherited syphilis treatment begun during the first month or so of life should not be stopped until at least the above criterion has been fulfilled. To quote from Stokes,[7] "Early heredosyphilis is virulent early syphilis. The issue at stake is the child's life and it seems better to adopt adult intensity in treatment." Early vigorous treat-

ment will result in an early reversal of the Wassermann, and a clinical cure. However, treatment begun after several years should be handled as a late latent infection with less active treatment, spread out over several years. It is in these late cases that we see the Wassermann which can hardly, if ever, be reversed.

In children seen during the first few weeks with no visible lesions or with the early manifestations, vigorous treatment should be instituted first to render the child non-contageous, and secondly to kill as many of the organisms as possible before they are walled off in fibrous and lymphoid pockets.

Treatment should be instituted with very small doses of neoarsphenamine intravenously or sulpharsphenamine intramuscularly, combined with, or followed by, mercury by inunction or injection, or bismuth by injection. Fordyce and Rosen[4] have shown in a long series of cases that mercury bichlorid in oil intramuscularly in ten to twelve injection courses once weekly, followed by arsphenamine in course of eight injections once weekly, is entirely feasible in children. Sulpharsphenamine in aqueous solution and neoarsphenamine in oil may be given intramuscularly, providing the technical difficulty of neoarsphenamine intravenously is insurmountable.

The table following shows an approximate first course outlined for a case seen one week post partum with heredosyphilis.

Neoarsphen. G-0.050 I.V. or same dose in sterile olive oil I.M. 5 days later.	
Neoarsphen. G-0.075	Bis. Sal. ⅛ c.c. I.M.
1 wk. Neoarsphen. G-0.1	1 wk. Bis. Sal. ⅛ c.c. I.M.
1 wk. Neoarsphen. G-0.1	1 wk. Bis. Sal. ¼ c.c. I.M.
1 wk. Neoarsphen. G-0.1	Continue until 12 given
1 wk. Neoarsphen. G-0.1	
1 wk. Neoarsphen. G-0.1	
1 wk. Neoarsphen. G-0.1	

The above routine should be repeated at least three times with no rest period. The substitution of old arsphenamine intravenously for one course gives excellent results. This should be given in doses of G-0.1 once a week, dissolved in 20 c.c. of water and properly neutralized with sodium hydroxide It should be given very slowly. As the patient grows older neoarsphenamine will prove more effective in larger doses: that is, neoarsphenamine G-0.15 at six months; G-0.2 -0.3 from one to two years. Sulpharsphenamine intramuscularly is not quite so effective, but may be used in the same dosage as neoarsphenamine.

The critical period is during the first few weeks and during this time the baby should be carefully examined every few days. If there is not immediate response to the neoarsphenamine or sulpharsphenamine alone, mercury by inunction should be added. This should be spread under the binder and left on constantly.

The mother should be put on vigorous arsenical medication and the child kept at the breast. The children seem to derive considerable benefit from the mothers' medication. Caution should be used in giving the mother iodide. Some infants are very sensitive to it and will get sufficient in the mother's milk to cause a severe upset.

In cachectic infants the following methods has proven very successful in a few cases. The mother is given a maximum dose of old arsphenamine and in thirty minutes 10-40 c.c. blood is withdrawn, the serum is extracted under sterile precautions and given subcutaneously to the infant. This should be repeated every two or three days, using the paternal or other luetic donor's blood.

Treatment should be continuous or practically so for the first year or eighteen months. Dosage and rest periods must be regulated for each case according to the response to treatment and with special attention to unfavorable reactions. The serum reactions should be checked every one or two months. The large majority of Wassermanns should be reversed after the first course of arsenic (Fleming[3] 96 per cent of forty-four infants). Fleming[3] also found that the reactions relapsed again unless treatment was continued. We see this same relapse in the acquired case unless treatment is continued.

Some time during the active course of treatment a spinal fluid study should be made, and any evidence of central nervous system involvement should be checked by adequate treatment, such as a switch to old arsphenamine or a few Swift-Ellis treatments; children tolerate them very well.

Since the article written by H. Guillemot[5] in 1924 on the use of acetarsone by mouth in a syphilitic infant, the attention of the medical profession has been frequently directed to its use in these cases. However, it is only within the past year or so that the dosage has been at all uniform and the technic fairly standardized. The

methods largely used now in this country seem to follow in the main that suggested by Bratusch-Marrain[2] in the Arch. fur Kinderheil. Their method which we recommend is as follows:

1st wk. G-0.005 or 1/13 gr. per Kilo daily
2nd wk. G-0.010 or 1/7 gr. per Kilo daily
•3rd wk. G-0.015 or 1/4 gr. per Kilo daily
4th wk. G-0.02 or 1/3 gr. per Kilo daily

This is the maximum dose and the course lasts over a period of nine or ten weeks.

The daily dose in infants is given all at once in plenty of water about one-half hour before feedings. In the larger children the dose is divided and given with plenty of water before each meal. The majority of writers so far have given acetarsone without complementary treatment. We feel that results would be much better if the course of acetarsone instead of being followed by a long rest period was followed by a course such as that used in the arsphenamine series, using mercury inunctions or injections, or bismuth by injection. In this manner the method could be made intensive and still not overload the child with a single agent.

In very active early cases I am sure that results would be better if for the first course the arsphenamine routine recommended above was used. Later courses could be continued with acetarsone.

During the past year or so acetarsone has been used intravenously in syphilis of the central nervous system with very superior results. As far as I know, it has not been used in children but I see no reason why the results should not be equally as good.

Tryparsamide has been used with excellent results in preparetic and paretic adults and occasionally in children. It has been given in proportionate dosage and the results have been good.

Syphilitic children seen later in life must be studied carefully to determine whether there is any definite gross changes, and treatment individualized and directed toward relief of the main pathology. The treatment should be started slowly with iodides and mercury or bismuth for one or two months to avoid a Herxheimer reaction, *i.e.*, a focal flare-up after the first treatments. Following this the treatment should be more intensive with alternating courses of arsenic in the forms of some arsphenamine or acetarsone and bismuth or mercury for about one year. After this one or two courses a year should be given and the patient examined three or four times a year until puberty is well past. Puberty is the time of greatest danger in these cases for it is at this time that we see the permanently destructive lesions such as interstitial keratitis, nerve deafness, etc. Cases which have been clinically and serologically negative for several years and have passed the danger point of puberty may be discharged and seen only once a year for a check-up.

Fever therapy has come into great vogue during the past ten years as an excellent method in the treatment of syphilis of the nervous system. The results in adults have been very good but not quite so satisfactory in children. Robert Lees[6] reports cures in 21 per cent and improvement in 30 per cent in juvenile paresis. The results reported from the injection of a sulphur product (sulfocin), from typhoid vaccine intravenously, from rat bite fever, etc., have not been entirely satisfactory. However, diathermy and malaria both give excellent results. The majority of observers think that the results are better, due to the higher and the more prolonged high temperature. Results have not been good except in cases in which the temperature has reached 104°-105°.

We have made an effort here to briefly review the natural history and pathology of syphilis and to show how a proper understanding of these facts should be used in the planning of treatment for the child with inherited syphilis.

BIBLIOGRAPHY

1. Atlee, E. A., and Tyson, R. M.: Am. Jour. Dis. of Child., 44:718-727, 1932.
2. Bratusch-Marrain, A.: Arch. für Kinderheil. 92:26, 1930.
3. Fleming: Quoted by Stokes, page 1060.
4. Fordyce and Rosen: Arch. Derm. and Syph., 5:1, 1922.
5. Guillemot, L.: Bull. Soc. de Pediat. de Paris, 22:211, 1924.
6. Lees, Robert: Brit. Med. Jour., 336:3685 (Aug. 22), 1931.
7. Stokes, J. H.: Modern Clinical Syphilology. W. B. Saunders, 1926.
8. U. S. Public Health Service Committee: The management of syphilis in general practice. Reprint No. 13, Venereal Disease Information, X:2 (Feb. 20), 1929.
9. Warthin, A. S.: Am. Jour. Syph., 14:1-34 (Jan.), 1930.

MEDICAL PARTICIPATION IN PUBLIC HEALTH*

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Each year public health becomes more and more a summation of personal health. The community with a low death rate, after adjustment has been made for racial, occupational and age maladjustment, is one in which the majority of individuals has learned to apply the principles of hygienic living. That community in which the citizens have learned that tuberculosis is a communicable disease and have recognized that tuberculosis breeds tuberculosis, will have the lowest death rate from this cause providing, of course, that adequate facilities for case-finding, nursing service and hospital care have been established. The community with the lowest diphtheria death rate is the one in which the highest per cent of susceptible children have been protected. The city with the lowest general death rate is the one in which the average citizen has learned to accommodate his daily life to the knowledge that the scientific laboratories have generously provided with respect to the prevention and control of disease. If we are to have healthy cities and states, we must have healthy individuals. Public health administration is becoming more and more a matter of personal hygiene.

When the first permanent health organizations were created in this country some seventy-five years ago, little was known of the science of bacteriology and there was no recognition of the prominent part that the individual plays in determining the health and welfare of the community. There had been very little progress in the study of the causative factors since the days of Greek medicine and it was naturally assumed that man's environment was the most potent factor in determining the prevalence of infection. The American health department, both local and state, was created with vast police authority to combat nuisances, offensive trades and, in general, to control all obnoxious matters which might prove inimical to health. Particular heed was given to municipal cleanliness, including, fortunately, the disposal of human wastes. This led naturally to the creation of vast systems of sewerage and sewage disposal and improvements in the quality of our water supplies. There resulted a diminution in the filth-borne diseases such as typhoid fever and other disorders of the alimentary tract; but, contrary to the expectation of the sanitarian, there was no noticeable influence upon the prevalence of other communicable diseases. Not until Pasteur and Koch had opened up the newer knowledge of bacteriology did the sanitarian recognize that it is the individual even more than his environment which determines our health tone. So in recent years public health administrators have come to recognize that to improve the public health we must stimulate a reaction on the part of the individual citizen to our health educational program, must provoke a response so that he will daily practice the principles of prophylaxis. The early American health department was clothed with tremendous police authority which it freely exercised in its fight against insanitation. The modern health department is organized to pursue vigorously a program of health education in which the physician and dentist must join hands with the health educator and the layman.

There are some public health officers who feel that certain of the medical services which have become a heritage of the health organization should be gradually transferred to the family physician in his own office. They believe that such a program will extend the influence of the community health organization, will multiply the opportunities for health education and will result in the conservation of both life and money.

The watchword of the day is economy. We have been told of the high costs of medical care and at the same time informed of the low average income of the physician. The very best way to reduce the high cost of illness is to prevent the individual from becoming ill. A slight increase in expenditures for preventive medicine will materially reduce the cost of caring for the sick. In the future medical practice will be largely

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of a preventive character. The office of every prepared physician should in fact become a health center from which will be dispensed not only knowledge regarding the prevention of disease but service which under any circumstances is available only at the hands of the qualified physician. Each local community has but one health officer. There may be scores or even thousands of practicing physicians each one of whom should become an agent or deputy of the health department.

Programs have already been instituted in three rural counties of southwestern Michigan (Barry, Allegan and Eaton) under the direction of the W. K. Kellogg Foundation and in urban Detroit by the Wayne County Medical Society and the Detroit Department of Health, with the view to securing the active participation of the practicing physician in providing preventive medical services for the public. The objective is to have the family physician care for his clientele in health as well as in illness. In case of illness a physician is better able to serve his patient if he has a complete understanding of the patient's mental and physical characteristics. There is likewise need of re-educating the public to look toward the physician in private practice for such preventive services as diphtheria protection, smallpox vaccination and periodic health examination rather than to depend upon public agencies and free clinics. Preventive medical services constitute a purchasable commodity; an investment which yields generous returns. The willingness with which the public accepts such services will largely determine the individual's future health status. Unfortunately in many communities a certain degree of suspicion and antagonism has developed between the county medical society and the health department. The former probably frowns upon the real or mythical inroad of socialized or state medicine while the latter has failed to appreciate the important part that the family physician if properly trained can play in extending the community health service. The health officer may have overlooked the viewpoint of the practicing physician, may have permitted his organization to develop so as to interfere with the private prerogatives of the physician and may have enticed into free clinics individuals who can well afford to pay the family physician for his service. There is need of a more common understanding between the organized medical profession and the local health agency, both of which have a similar purpose, the preservation and conservation of human life.

The programs already referred to do by no means constitute the sole effort to bring about a better state of public health through the active support of the practicing physician. In Flint, Pontiac, Saginaw, Jackson, Battle Creek and Muskegon the medical societies have undertaken somewhat similar projects with local variations in application. Of one thing we are convinced and that is that the organized medical profession can make a material contribution to improvement in public health. There are some health officers who declare that the coöperation of the family physician cannot be effectively secured. To such a declaration we most vehemently object as it has been amply demonstrated that as many as 1,100 physicians can be organized to provide suitable service in a single community. The county medical society has neither the funds nor the personnel equipped to carry on a community health service and there is therefore need for a local health organization with a full-time health officer fortified with adequate funds. Every county in Michigan should have a whole-time health department unless the county be so sparsely settled that it becomes economically advantageous to combine with one or more other counties into a health district. At the head of such county health organization there should be a public health administrator trained in preventive medicine, aided by one or more public health nurses. There should also be sufficient personnel to provide a sanitary inspection service and the necessary clerical help. Diagnostic laboratory service should either be provided locally or made available by some nearby institution. In addition to his training in public health work the principal qualification for the health officer should be a sympathetic regard for the viewpoint of the practicing physician and the ability to harmonize his program with that of organized medicine. Those who assume that the practice of preventive medicine in the physician's office warrants the curtailment of funds to the local health department are bound to be disappointed. If the health department withdraws from the cooperative plan, disaster will result. The two groups, the medical profession and the health agency, must work together and rec-

ognize their common interest in the promotion of positive health, the prevention of disease and in service to the public, more especially the growing child.

This newer approach to preventive medicine through the family physician, which has been long discussed but only lately actually applied, involves, first, a group plan; second, the extension of local public health organization and, third, compensation to physicians for service rendered indigents.

The group plan should be controlled by the county medical society, which through its authorized committee should establish a procedure with the coöperation of the local health officer. We feel that the county should be the smallest unit for the health organization. There should be a county health officer whose jurisdiction includes the entire county. The county medical society should concern itself with the preparation of the physician so that each man who cooperates agrees to abide by the program and prepares himself to practice modern preventive medicine.

The health department should concern itself with the preparation of the public. While general health education such as the use of the radio and the printed and spoken word is profitable, the best results can be obtained by employing properly trained public health nurses as health educators to carry the message of disease prevention to the individual parent in his home. A program for the eradication of diphtheria by securing the protection of children of susceptible age, more especially the infant from six to twelve months of age and the preschool child, affords a unique opportunity of placing into effect a program of medical participation in public health work. A public health nurse visiting the home of each child as it reaches the age of six months serves to bring about a contact between the family and the coöperating physician. In Detroit such a plan has provided for the immunization of more than one-third of the children before they attain the age of twelve months.

Each physician should receive some compensation for every service rendered. When the parents are financially able they should pay the physician direct but for indigents the community through its health department can well afford to set aside each year a sum with which to pay an honorarium to the coöperating physician for each service where the parent is unable to pay.

Using the diphtheria prevention project as an entering wedge the program may readily be expanded so as to include protection against smallpox, provision for an annual health and dental examination and may even be extended to the control of tuberculosis and the venereal diseases and to other phases of preventive medicine.

It has been found that such a program of medical participation in health work is profitable to the physician, to the public and to the health department. It costs less to prevent than to cure. In conclusion we would urge that every county medical society in Michigan strongly support the establishment of a properly organized and personnelled county health department which will work wholeheartedly in the interests of the local medical profession and thus serve the public to maximum advantage.

SCIATIC NEURALGIA: CLINICAL ENTITY: ITS SYMPTOMS, DIAGNOSIS AND TREATMENT: REPORT OF SIXTY CASES

A study of sciatic neuralgias and a review of sixty cases led EMIL D. W. HAUSER, Chicago, to conclude that this condition is not a true neuritis but an essential reflex sciatic neuralgia, that the referred pain is not confined to the sciatic nerve, that the origin of these pains may be attributed to muscular insufficiency or physical strain and that any environmental condition which strains the nervous system acts as a contributing factor. The author's ideas are in accord with Linstedt's views that chronic irritations result from functional fatigue; that functional fatigue, in his cases, was secondary to organic alteration of normal body statics; that the irritation of chronic fatigue may make the nerve of the involved part hypersensitive and produce pain along the course of the nerve. When such pains occur in the region of the sciatic distribution they are called sciatica. These views were confirmed by Haglund's vast experience; he also found that the removal of functional insufficiency by means of orthopedic measures cured the sciatica. In the sixty cases that the author reviews, relief was obtained in each case as soon as a functional compensation was reëstablished. These observations cover a period of seven years, during which time the patients have remained well.—*Journal A. M. A.* (May 5, 1934).

PITFALLS IN THE X-RAY DIAGNOSIS OF BRONCHIECTASIS WITH IODIZED OIL INJECTIONS

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With the advent of lipiodol and other iodized oil injections, the x-ray diagnosis of early bronchiectasis, which, only a decade ago, was indeed difficult, has been greatly simplified. The x-ray interpretation is still fraught with some difficulties and undoubtedly a few erroneous diagnoses of bronchial dilatation are being made, simply because the mechanical knowledge, which is usually considered uninteresting, is not being applied. The iodized oil is injected too frequently under excessive pressure. It is forced into the bronchi and not allowed to run in. The roentgenologist is over-anxious, in interpreting the x-ray films of children, to find evidence of bronchiectasis, especially when there is a history of recurrent attacks of cough, probably associated with a chronic bronchitis or pneumonitis, and he is still more anxious to find evidence of bronchial dilatation when the referring physician states that there is a chronic bronchitis with or without emphysema or asthmatic symptoms. In some of the cases where bronchiectasis has been established by the x-ray diagnosis there has been no sputum, indicating that there is little or no infection. To this condition the term "bronchiectasis sicca" has been applied.

In this paper the technic of bronchsocopic injections with iodized oil is to be discussed, since, in many instances, this method is particularly adaptable to children from whom no coöperation can be expected. If properly done, the bronchoscopic method is a very reliable one; but the technic of execution is very difficult. In selected cases it may be used advantageously in adults. The supraglottic method or even the intratracheal method requires much less effort, time and training. Hence, we believe that bronchoscopic injection of iodized oil is indicated only when the coöperation of the patient is not assured or where one particular area of the lung is to be investigated for evidence of disease. Of course, there are some contra-indications to the exploration of the bronchial tree with iodized oil even though the mechanical procedure is innocuous.

If diagnostic films are to result, teamwork of a skilled bronchoscopist and a radiologist is essential. The oil should be allowed to flow in the bronchi on an x-ray table, preferably a fluoroscopic table. The x-ray exposures can then be made without moving the patient about, as movement has a tendency to distort the outline of the filled bronchi and might stimulate the coughing reflex. We have observed, in a few instances, that the oil is expelled from the bronchi due to normal peristaltic-like waves. Hence it is always desirable to make the x-ray exposure immediately after the oil has entered the lung tissue under investigation.

Preparation of the Patient.—The child should be hospitalized and a sufficient amount of morphine or a barbiturate given to produce a narcosis. Respiration must be regular even though it may be reduced. The bronchoscope is passed and the iodized oil is allowed to flow in at body temperature, a very little at a time, preferably under fluoroscopic control, as it is desirable at all times to know how much oil is actually being used. A more uniform result in the filling of the bronchi can be obtained if it is done with the use of a mercury or water manometer. Five-tenths c.c. of oil or more may be used at a time, using both the manometer and fluoroscope for accurate control during the introduction of the oil into the bronchi. By using a double control of this kind a few of the mechanical errors mentioned above, namely, too much pressure and too much oil, can be eliminated. Iodized oil should *flow* into the bronchus. It should *never be forced* in with pressure. As a matter of fact, the force of gravity and the weight of the oil are sufficient to outline the bronchi. Too much pressure forces the oil into the terminal air cells or alveoli and the shadows on the x-ray films show up as meaningless globules with hazy outlines. It must be borne in mind that these shadows are distortions of normal tissue. Too frequently they have been interpreted as indicating a diseased condition. When too much oil is used, the x-ray film presents many superimposed shadows of filled alveoli, simulating an outline of a small abscess cavity or slightly dilated bronchi.

In a recent study of children, injections were made without fluoroscopic control and without the use of a manometer. The roentgenologist interpreted the films without knowing the method of injection. Consequently bronchiectasis was a common and frequent diagnosis. One day one of the attending physicians questioned the interpretation of bronchiectasis and asked this question: "Is oil injection infallible in demonstrating bronchiectasis?" This was the inspiration for the dog experiment which is recorded herewith.

Dog Experiment.—A medium sized Boston bull terrier, weighing about 20 pounds, with an injured right shoulder, was given 7 grs. of nembutal, 5 grs. one and one-half hours before bronchoscopy and 2 grs. one-half hour before. A preliminary x-ray film of the chest was made after the dog had been placed on the fluoroscopic table. This film demonstrates the injured shoulder, namely, a fractured humerus and a calcified shadow in the stomach, probably a piece of bone. The lung fields are clear throughout. As bronchiectasis is a common disease in dogs, it was necessary for us to exclude this possibility immediately. The bronchoscope was passed and the mucous membrane of the trachea and bronchi was found to be clean and free from injection. A tube was attached to a water manometer connecting the bronchoscope and the syringe used to inject the lipiodol. The internal resistance of the apparatus had been tested previously and was found to have one-half to three centimeters of water pressure, depending upon the rapidity with which the plunger was forced up and down in the syringe. The lipiodol was forced into the bronchoscopic tube under 14 to 20 cms. of water pressure. This was done under fluoroscopic control and the air in the bronchoscope was allowed to escape through the bronchoscopic shield. As soon as lipiodol appeared at the tip of the bronchoscope one additional c.c. of lipiodol was injected. The reading of the manometer at this time showed 20 cms. of water pressure. The injection was stopped and the fluoroscopic study revealed that approximately 3 inches of the smaller bronchi had been injected although only 1 c.c. of oil had been used.

(Dr. Hasley showed a number of films demonstrating the injection of the bronchi with lipiodol which was controlled by a tube connected with a manometer. The successive films exhibited exposures made first after the initial injection then after 3 additional c.c. of oil showing a pressure up to twenty-five; then an additional 3 c.c. of lipiodol increasing pressure to thirty; 5 additional c.c. and then 6 additional centimeters, the pressure being twenty-eight and twenty-seven respectively.—Editor.)

At the conclusion of the experiment 18 c.c. of oil were recovered from the manometer tube and 3 c.c. from the bronchoscope. A total of 25 c.c. had been injected, which left 4 c.c. to be accounted for. *This represents the actual amount introduced into the lung field.* None of the oil had entered the stomach. The shadow of increased density in the region of the stomach was present on the preliminary plate. During the last few minutes of the experiment oil did enter the stomach but was found to flow back into the esophagus as soon as the bronchoscopic shield was released. This was noted under the fluoroscope. The last films show that some of the oil had entered the small alveoli and that many of the shadows were beginning to overlap and to develop into meaningless shadows. On film No. 7 the shadows on the right of the midline are overlapping and demonstrate, we believe, convincingly, how easy it is to misinterpret the shadows and to make a diagnosis of dilated bronchi when, in reality, the condition is due to confusion of the superimposed shadows.

The authors realize that there are other factors which must be included in the complete study of the possible pitfalls, such as, viscosity of oils, influence of various barbiturates and opiates on the involuntary musculature of the bronchi; the amount of relaxation of the muscles due to nerve paralysis following the local application of cocaine or novocaine; the changes in the outline of the bronchi in inspiration and expiration or the motor physiological changes during normal respiration; as well as physiopathological changes in the bronchi due to associated disease conditions, such as asthma and emphysema.

In conclusion, we wish to emphasize again that there are two factors, commonly overlooked, which may result in erroneous interpretations in lipiodol diagnoses—too much oil and too much pressure.

ARSENIC PASTE IN CANCER OF THE SKIN*

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Arsenic as we all know is a compound that dates from ancient and medieval times. It has been used in any number of instances, both as a therapeutic drug, and as a means of human destruction. It is now used by the physician and the manufacturer, the former in the treatment of syphilis and skin conditions, the latter in the making of dyes, glass and papers.

In reviewing its early history, we have found that the first definite references as to the use of arsenic date from 460 B. C., the time of Hippocrates, the father of medicine, born on the isle of Cos, and who was the founder of the Hippocratic school of medicine which initiated a system of therapeutics that is based upon prognosis and upon respect for the endowments of nature. He used arsenic in catarrah internally and mentions the orpiment, stating that it is an excellent ingredient in a paste for the treatment of ulcers.

Democritus, who was an admirer of Hippocrates, and incidentally a traveler, philosopher, writer and metaphysicist, although not a practitioner of medicine himself, is claimed to be the first of a long line of alchemists to have used the metal in attempts to convert base metals into gold.

From the death of Democritus, till 40 A. D., arsenic remains unmentioned, because the physicians during all this time, no matter what great school they were graduates of, were not permitted to use the "poison" and others allied to it in their actions, by the laws of Plato. It remained, however, for Dioscorides of Cilicia, of the Alexandria School, to enter arsenic in his treatise on Materia Medica, which included 500 plants and minerals and was considered a fairly voluminous work for that time and age. It was he who mentioned the poisonous effect of arsenic on the intestines. Aurelius Cornelius Celsus, alleged to have been born in Narbonne about 25 B. C., author of that much discussed work of art, *De Medicina,* makes mention of the crusting and scaling which follows the use of arsenic. It is worthy of note to state that *De Medicina* is a work of surprising literary art, being the first medical thesis in Latin, and of great historical value, since from its appearance the official use of Latin in medicine takes form.

Galen, born in Pergamum in 130 A. D., was tutored in the Alexandrian tradition by Satyrus, a pupil of Quintus. He was a firm upholder of Hippocrates. Not only a physician, but also a pharmacist, a man of science, philosopher and a great leader in his time, he called attention to the escharotic properties of arsenic, and advocated its use for putrid ulcers. He wrote that it was as caustic as fire and mixed with quick-lime made an excellent depilatory.

Avicenna, the Hippocrates and Aristotle of the Arabians, born 980 A. D., differentiated, for the first time, white arsenic from the sulphides (orpiment and realgar). After Avicenna, arsenic played the great part in the alchemists' lives in formulæ for synthetic gold.

As a poison, white arsenic or arsenious acid was very popular in mediæval times, since it possessed all the properties of diabolical methods for ending life. Its properties of being colorless, tasteless and easily incorporated with articles of food were only too well known to the sorcerers.

In the treatment of skin cancer, arsenic paste was first mentioned as an escharotic in the writings of Hippocrates, who described it in the form of the yellow sulphide of arsenic or orpiment. As we have mentioned previously, Galen, knowing the escharotic properties of the drug, recommended its use in the treatment of indolent ulcers; however, it is not known whether he used it himself in this role.

Among the alchemists, Albertus Magnus (1193-1280) was the first one to prepare metallic arsenic.

It is not known who first reasoned that there might be something of good in this powerful poison and who daringly experimented with it as a therapeutic agent. About the middle of the eighteenth century, how-

*The Chairman's address read before the Section of Dermatology and Syphilology of the Michigan State Medical Society at its annual meeting in Pontiac, Michigan, September 23-24, 1931.

ever, there appeared a remedy called "Tasteless Ague and Fever Drops." In 1786, a London physician by the name of Thomas Fowler, was led to investigate these ague drops and to formulate a solution which he considered to be a satisfactory imitation. This is called Fowler's solution to this day.

Some of the old recipes for the preparation of arsenic pastes are interesting. One of them is as follows: Arsenious acid, 2 drams; cinnabar, 2 drams; ashes of old leather, 8 grains; dragon's blood, 2 grains; make into a paste with water or saliva.

Jean de Vigo, in the fifteenth century, used ointments containing arsenious acid, red and yellow sulphide of arsenic, litharge, alum, mercury, sulphur, vitriol, camphor, antimony, incense, myrrh, aloes, sanguinaria and black hellebore in ulcerative lesions. (Bechet.)

Until the eighteenth century, arsenic as a local cauterizing agent was used in haphazard fashion by Fabrice de Hilden, P. J. Faber, Magatus, and others. It was condemned by Junker, Boerhaave, Triller, Lieutand, Heister, Richter, and Stoll.

Rousselot, a chiropodist to the Dauphin, published in 1769 the results of several years' experience with arsenical pastes in cancer; to him, therefore, must go the credit of priority in the use of this method. His favorite application consisted of cinnabar, sanguinaria, and arsenic; this was mixed in the palm of the hand, saliva being used as a diluent; the paste was then applied to the cancer and kept in place with a spider web. (Bechet.)

Twenty years later, a monk, Friar Come or Cosme, and his pupil and successor, Friar Bernard, used a formula with which they were very successful in the treatment of patients with cancer; it consisted of powdered arsenic, 5 grains; cinnabar, 25 grains, and powdered burnt shoe soles, a pinch. They had purchased this formula from a barber surgeon for 3,000 livres.

According to King, Laurent Theodore Biett, Swiss physician (1781-1840), was the first of the more modern physicians to use arsenical paste in the treatment of skin cancer. In his train there follows a long list of physicians who used arsenic pastes for this purpose. In this list there are many illustrious names.

Bechet mentions the fact that Emmanuel Patrix, in 1816, published a monograph entitled "The Art of Applying Arsenic Pastes" with a clear and definite discussion of indications and contraindications for its use, and that John Marshall used arsenical paste successfully on a cancer in the right inguinal region in 1817.

Ferdinand Von Hebra, the Austrian dermatologist (1816-1880), used an arsenical paste that was a modification of Friar Cosme's. Hebra modification was:

Acid. arseniosi	1 part
Hydrarg. surphuret rub	5 parts
Ungt. aquæ rosæ	40 parts

Johann Friedrich August Von Esmarch, the German surgeon (1823-1908), employed arsenic powder both internally and externally, the former because the medicine was supposed to promote the disintegration of albuminous compounds. For the latter purpose the powder was used instead of a paste. The powder was thickly strewn over the ulcer or wound every day; its action was powerfully escharotic but painless and neutralized the fetor of the sore.

Alexander Edwin Marsden, English surgeon (1832-1902), introduced a caustic paste consisting of two parts arsenious acid, one part powdered gum acacia, and water to make a paste. In 1869, Marsden wrote a paper entitled "A new and Successful Mode of Treating Certain Forms of Cancer." At this time he had observed 6,000 cases in the cancer hospital of London and had come to the conclusion that skin cancer was best treated by the use of caustics. He had employed his method for seventeen years before publishing his results. His book contains detailed reports of twenty cases in which his paste was successfully employed; among this number were several large epitheliomas involving the entire lower lip. This treatise gave impetus to its widespread use in England and America and many conservatives used it with excellent results.

Moritz Kohn Kaposi (1837-1902), the Austrian dermatologist, Hebra's pupil and son-in-law, further modified his mentor's paste by substituting factitious cinnabar for the red sulphuret of mercury.

Koebner in 1883 reported that he had cured a case of multiple sarcoma of the skin by injecting each of the small tumors with Fowler's solution. This is interesting although not strictly relevant to our subject.

Unna (1850-) reported successful treatment of epithelial new growths by the

continual application of mercury ointment containing 5 per cent arsenic. He said the growth disappeared by absorption as in spontaneous cure.

The treatment of cancer by arsenic has been both internal and external. At one time the administration of iodide of arsenic was held by competent authorities to be capable of diminishing the size of cancerous tumors, but the treatment has now lost whatever credit it once possessed. As a caustic, arsenic was used for the destruction of cancerous tumors even by the ancients, and throughout the course of medical history, examples may be found of faith in its propriety and efficacy. Arsenic forms the basis of most of the secret cancer cures which have enjoyed popularity. Before the advent of the x-ray, radium, and other modern means of treatment, arsenical pastes were popular remedies in the hands of ethical physicians, but in recent times the practice has fallen largely, but not exclusively, into the hands of quacks. Most of these arsenical caustics are excessively painful and, if applied over a large surface, involve the risk of producing poisonous effects, and their use has even been characterized as "a murderous practice."

Plunkett's caustic, an empirical remedy of great repute, consisted of Ranunculus acris and Ranunculus Flammula, each an ounce, bruised and mixed with a dram of arsenious acid and five scruples of sulphur. The whole was beaten into a paste, formed into balls, and dried in the sun. When used these balls were rubbed up with yolk of egg and spread on pig's bladder.

Robinson uses two strengths: (1) Equal parts of arsenious acid and powdered acacia, and (2) two parts of arsenious acid and one part of powdered acacia.

From 1900 to the present time, articles have appeared in the literature from time to time, some extolling the virtues of arsenical paste in the control of skin cancer, and others condemning it as strongly. Of this large number of articles of which the indices make mention, I have selected only a few, partly because only a small number of these are available locally, and partly because these are sufficient to show the trend in the use of arsenic pastes.

In the *Journal of the American Medical Association* for July 13, 1901, M. L. Heidingsfeld discusses the treatment of cutaneous cancer and makes the following statement:

> The treatment of cutaneous cancer has been one of the most serious and difficult problems with which the profession has had to deal. The remedies which at one time have been highly extolled, at another, severely condemned, are exceedingly varied in nature and innumerable in number. Two remedies which are received with much favor today, zinc chloride and white arsenic, have been extensively used, the one for scores of years, the other, for centuries. The use of these two, in the hands of certain specialists, was attended at least in several cases by eminently successful results; in others, there was absolute failure, if not death of the patient. . . .
>
> From this I infer that arsenic possesses not only an elective action, exerting its chief influence on the weaker and less stable pathological tissue, sparing the more resistant surrounding normal tissue, but also exerts a specific influence over cancerous tissue whereby it inhibits its growth and prevents its further spread and development without entailing its direct destruction.

The method of treating skin cancer by the use of arsenical pastes has not passed entirely into oblivion even at the present time. Sir Norman Walker in his "Introduction to Dermatology" (New York; William Wood and Company, 1921) speaks very highly of it. Stelwagon in his "A Treatise on Diseases of the Skin" (Philadelphia; W. B. Saunders and Company, 1921) states that he employs the method frequently and endorses it fully. Darier in "A Textbook of Dermatology" (Lea and Febiger, 1920) calls it "the most convenient and most desirable caustic, which has yielded the largest number of durable and good esthetic results in my experience." Sutton, in "Diseases of the Skin" (St. Louis; C. V. Mosby and Company, 1926), gives a full page to the explanation of the method, and stated that, when properly employed, excellent results followed its use. Ormsby, in "A Practical Treatise on Diseases of the Skin (Philadelphia; Lea and Febiger, 1927), describes the technic in full and states that the treatment is effective.

William Allen Pusey, in his "The Principles and Practice of Dermatology" (D. Appleton and Company, 1924), says:

> "The use of caustics, especially of caustic pastes, is not generally looked upon with favor. The reason for this, I believe, lies largely in the facts, first, that it is different from ordinary surgical procedures, and, second, that it is used and exploited to a great extent by irregular practitioners.
>
> "The method has been advocated in this country notably by Robinson, and my experience with it enables me to indorse it fully. Like any other method of treatment, it must be radical to be successful and must be properly carried out. The great advantage of the use of caustics is that they produce a zone of violent inflammation around the mass which they destroy so that they destroy not only the epitheliomatous tissue actually cauterized, but, through the inflammatory process excited, also outlying masses

which have not been actually reached by the caustic.

"In my experience both (Marsden's and Bougard's pastes) give equally satisfactory results."

George C. Andrews in "Diseases of the Skin" (W. B. Saunders Co., 1930), says:

"Treatment by arsenical paste or zinc chloride paste is painful and not generally useful, but certain persistently recurrent, heavily irradiated, infected localized growths can be cured by no other methods."

The most complete report on the use of arsenical pastes in the treatment of skin cancer was made by Charles W. Strobell in the *New York State Journal of Medicine* for November, 1921. He writes under the title "Painless, Non-disseminating Chemical Removal of Inoperable Cancer of the Breast and Axillary Nodes with Report of the first Forty Cases (1898-1920)." In this article, he tells how he came to use arsenical pastes in the treatment of skin cancer. A patient came to him with a scirrhous carcinoma of the left breast urgently in need of surgical excision. The patient refused operation but wished him to make a caustic application. This he refused to do on the grounds that he was not familiar with the use of caustics, had no faith in the method, and that he refused to experiment. In the end, however, she being an old-time patient, he promised to do what he could. He looked up Marsden's formula and used it with temporary success. But in four months, the patient came back with a recurrence of the cancer, far worse than the original. Again he applied arsenical paste, this time for a longer period, and got a complete clinical cure so that the patient lived for eight years after that, when she died suddenly of heart disease. The outcome of this matter was that he used it regularly after that. His observations in this paper are based upon twenty-two years' experience. His conclusion is that the end-results or average duration of life following the chemical removal of surgically inoperable cancer of the breast, compares favorably with those obtained by surgery when the cancer is still operable.

However, it is generally agreed that the use of modern physiotherapeutic methods, namely, cold spark, x-ray, and radium are to be preferred for the treatment of cutaneous cancer.

Great assistance was given, in the accumulation of the historical matter in this paper, by the class of 1932 of the Detroit College of Medicine and Surgery especially through the efforts of A. Frank Merlo and Bert Van Derkolk.

A STUDY OF NEUROCIRCULATORY INSTABILITY

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It would seem quite out of place for me to present to this group any new malady or a long series of statistics, but I can well take this opportunity to play the rôle of a dermatomytid and discuss with you some of the thought trends of the dermatological focus from which I sprang. My discussion of neurocirculatory instability will bring up for clarification several moot points, and if anything is gained it will be in a candid discussion of these points. (For use of term neurocirculatory instability, see Becker.[2])

There is a recent tendency throughout medical centers here and abroad to teach a functional[3] type of dermatology instead of the older morphologic type, just as Alvarez[1] in internal medicine is teaching a functional evaluation of the patient with nervous indigestion. This reverses the old order of things, and one looks more at the patient as a whole, and less at the part of his skin disfigured with lesions. I do not mean to say that skin lesions are not studied with an analytical eye, but after the customary diagnosis is made of dyshidrosis, pruritus ani, or neurodermatitis, the patient himself and his adjustment to his environment are put under careful scrutiny to give an inkling as to what kind of a fellow he is, to have such a problem on the skin.

Such inquiry based on a group of 185 patients brings out many interesting findings:

†Dr. Herrick is a graduate of Rush Medical College, 1927. She interned at Blodgett Memorial Hospital, Grand Rapids, Michigan, 1927-28. The three following years she spent in the Division of Dermatology of the University of Chicago Clinics, having the rank of Instructor. Dr. Herrick is limiting her practice to Dermatology and Syphilology. She is a member of the staffs of Blodgett Memorial Hospital and Saint Mary's Hospital.

This patient is usually from the "white collar class," and is the executive of home or office; he is more often a woman than a man (134 women to fifty-one men among my patients, of the past two years); he is organically sound, with a possible tendency to a low blood pressure, and often a low basal rate; he comes from a family some of whom are unusually alert, high strung, and ambitious, and in whom eczema, hay fever, and vasomotor rhinitis are seen. He shoulders his and others' burdens over-conscientiously, and is inclined to worry over them. He may be insensible to fatigue and work for years on nervous tension for fear of the flat let-down feeling of relaxation, or, more rarely, after a long period of stress and strain he may relax and the eruption appear only during the period of recovery of nervous energy.

Having generalized our patient, let us see what skin conditions predominate. First in frequency of occurrence is the classical neurodermatitis. But before discussing the patient with typical findings, I wish to clarify and enlarge the customary concept of neurodermatitis. In my student days the term was used as an alternate for lichen simplex chronicus of Vidal.[6] Later, I came to see that many cases of chronic eczema[7] were in reality patients with neurocirculatory instability, and their dry flexural eczema was accompanied by itching quite out of proportion to true eczema.

Here in Michigan I see an undue proportion of the Kreibich type of exudative neurodermatitis in which is seen the picture of true eczema with punctate vesiculation, surmounting chronic plaques of bluish papules, and finally scaling. Such plaques most frequently occur on the dorsa of the hands, and flexors of the wrist.

Two patients will illustrate the personality study frequently encountered in these conditions:

Mrs. J. J. has held a responsible position in a local department store, and has been in perfect health. She put in long hours (until the blue eagle arrived), but does not consider herself fatigued. A year ago she was married and has been doing all of her own housework before and after her working day. Several months after assuming this double burden she began to have a pruritic area in the nape of the neck. Local remedies in the hands of various physicians have proved futile. Though not aware of being fatigued, she says that little things irk her during the day, and cause her excessive worry. The lesion on the neck just below the hair line is 3x5 cm. across and is seen to be a well defined lichenified plaque with no erythema. There is no seborrhea. Pruritus is more intense than one would expect from the appearance of the lesion.

An example of the Kreibich type of neurodermatitis is seen in Mr. H. W., a lumberman. He is robust and intensely active. Physical examination and serological tests are normal. He had a clear skin, except for an occasional follicular eruption in seborrheic areas, until the market for furniture slumped. Since then he has had violaceous indolent plaques with frequent outbursts of pruritic vesicles, on the dorsa of both hands, and occasionally on the forearms and thigh. He is brooding continually on his decrease of business, and expects to lose his home. The only real improvement occurred when he got an order for lumber and went to the north woods for a few days to select timbers. Such a person comes closer to a neuropathic personality than most.

Next in frequency among my patients showing neurocirculatory imbalance comes the group having palmar and plantar dyshidroses. Patients in this group must be closely differentiated from those presenting dermatomycosis. Microscopic examination, while not infallible evidence, is a great help in ruling out fungus infections, but it is my personal view that clinically one can not distinguish the two conditions. Here the personality of the patient may be an aid to diagnosis, for many patients with negative laboratory findings, long treated for dermatomycosis, will have the eruption only during periods of stress and strain, and will spontaneously recover when able to relax. I believe this condition to reflect an inherent, probably inborn, protoplasmic instability. Such a condition was spoken of by Dr. Warthin as protoplasmic unrest, resulting in signs of neurovascular imbalance, but in which every cell participates.[4]

Other well known entities are being continually added to this major group of neurovascular imbalance. Thus, urticaria in adults more frequently results from sympathetic nervous system fatigue than from the previously oft-stressed food allergy. True, food allergy does cause hives, but more often than not the urticarial adult will prove negative to a most searching series of skin tests.[8] He will diet for this and that fancied cause, but will not improve until in desperation he remains at home or otherwise obtains the rest and freedom from stress that is long overdue, whereupon the conditions clears.

A similar situation exists in patients with pruritus ani and pruritus vulvæ. Many such people have no demonstrable pathologic condition, but have lived for years under exhausting nervous tension, and sometime in

their career the weakest link gives way. Itching is the result. This condition is particularly common among school teachers and one can see why. Enforced attendance at summer school to advance or maintain a position is poor compensation for days of gruelling patience, and nights of examination papers.

What is the significance of such a study? Chiefly this: We see in a large group of individuals having diverse skin conditions, the common element of sympathetic nervous system maladjustment creating excessive pruritus. In such patients local treatment is frankly only palliative and permanent relief is obtained by aiding each person to solve his own situation by frankly understanding the cause and the factors involved, and, in addition to local therapy, presenting for his acceptance a logical program of daily relaxation.[5] This is not easy, and many patients would rather undergo continuous lifetime annoyance from local treatment alone, than admit they were working and worrying too hard for their own nervous organization. On the other hand, patients of this group are usually intelligent and have passed from doctor to doctor with much futile local therapy, and they do respect a thoughtful analysis of their problems. Such people usually make satisfactory improvement and form the basis of my belief in the validity of this grouping.

SUMMARY

The designation neurocirculatory instability applies to a heterogeneous group of organically normal people presenting diversified skin conditions: neurodermatitis, dyshidrosis, urticaria, etc. These people are of the type who exhaust the reserves of nervous energy and show this fatigue by one of the above eruptions.

Neurocirculatory instability is a functional diagnosis.

BIBLIOGRAPHY

1. Alvarez, Walter C.: Nervous Indigestion. New York, 1931, Paul B. Hoeber, Inc.
2. Becker, S. Wm.: Dermatoses associated with neurocirculatory instability. Arch. Dermat. & Syph., 25:4, 655-659 (April), 1932.
3. Ibid: p. 682.
4. Becker, S. Wm.: Personal communication.
5. Jacobson, E.: Progressive Relaxation. Chicago; University of Chicago Press, 1929.
6. Ormsby, Oliver S.: Diseases of the Skin. Ed. 3, Philadelphia; Lea and Febiger, 1927, pp. 312-316.
7. Sulzberger, Marion, Spain, W. C., Sammis, Florence, and Shahon, H. I.: Studies in hypersensitiveness. I. Neurodermatitis. Jour. Allergy, 3:423 (July), 1932.
8. Sulzberger, M. B., and Wise, F.: Eczema from the modern viewpoint. Med. Jour. and Record, p. 3 (Jan. 21), 1931.

THE PSEUDO-SYPHILIDES OF INFANCY (NAPKIN ERUPTIONS)

CASE REPORTS*

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Napkin eruptions in infancy have long been recognized, and their occasional resemblance to syphilides was pointed out in 1877 by Parrot[15] and later by Jacquet[11] in 1886. Since that time, the entity which has become known as the "pseudo-erosive syphilide of Jacquet" has received attention by many different authors. Case reports and descriptions of the various types, as well as articles dealing with the etiology, have been reported by Southworth,[18] Dalous,[6] Hodora,[10] Hart,[9] and others.[7, 12, 14] In the German literature, Lipschutz[13] was the first to describe a similar process that occurred in adults. Lipschultz and Planner[16] report cases of adult females who presented several slightly indurated papulo-erosive lesions about the vulva. These lesions were for a short time viewed as syphilides because of their characteristic appearance. However, it was later discovered that in both cases there was a cystitis and a pyuria, and as soon as this was cleared up the eruption on the vulva likewise cleared up. The serology in both cases was negative.

Crawford,[5] Cooke,[4] Brenneman,[3] and Zahorsky,[19] writing in the American literature, consider ammonia in the diapers as the causative agent in producing napkin eruptions. Fournier[8] reproduced the lesions in children by producing ammoniacal diapers as an illustration of the etiology. From these experiments and the probable etiological fac-

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tor of ammonia, the condition may be considered as a venenata.

Jacquet recognized four forms of napkin eruptions that are to be differentiated from syphilides. These four forms are:

1. Erythematous
2. Erythemato-vesicular or erosive
3. Papulo or post-erosive
4. Ulcerative

The eruption appears first as a simple erythema, and, if hygienic measures are not instituted, the condition will progress through the above named stages. Later vesicles appear upon this erythematous base, but they soon become eroded. If the process is long standing, these eroded areas will become somewhat indurated and definite papulo-erosive lesions are formed. The usual number of papulo-erosive lesions varies from four or five to thirty, although occasionally a larger number have been noted. Sometimes these lesions become confluent and present circinate or serpiginous outlines which result from the coalescence of individual lesions. The papulo-erosive lesions may be closely followed by ulcerative changes. In one of the cases to be reported, the eruption had been present for two months and when seen presented papulo-erosive lesions with no ulcerative changes. Sevestre,[17] in an article that closely followed that of Jacquet, points out that, insofar as the individual lesion is concerned at the papulo-erosive stage, it is identical with that of a papulo-erosive syphilide. However, he also adds that the clinical picture as a whole can be differentiated from syphilis because of its localization to the napkin area. Another point in Sevestre's article that is worthy of consideration in establishing a differential diagnosis is that the eruption will clear up under hygienic treatment and will remain cleared up, whereas syphilides do not clear up except under specific therapy. Still another interesting observation by this same author is that a pseudo-syphilitic eruption may also occur in a congenital syphilitic, but this condition will not clear up under specific therapy. The diagnosis is made in this situation on the sharp localization of the eruption to the napkin area in spite of the positive serology and the close resemblance of the individual lesion to a syphilide. A therapeutic test will not clear up the pseudo-syphilitic eruption in this case as was previously pointed out.

Crawford and Cooke mention as other points in the differential diagnosis the absence of palmar, face, and sole lesions; the limitation of the eruption to the convex surfaces; the lack of congenital stigmata;

Fig. 1. Napkin eruption presenting discrete papules. Photograph taken two days after patient had been on an antiseptic régime.

Fig. 2. Enlargement of Figure 1.

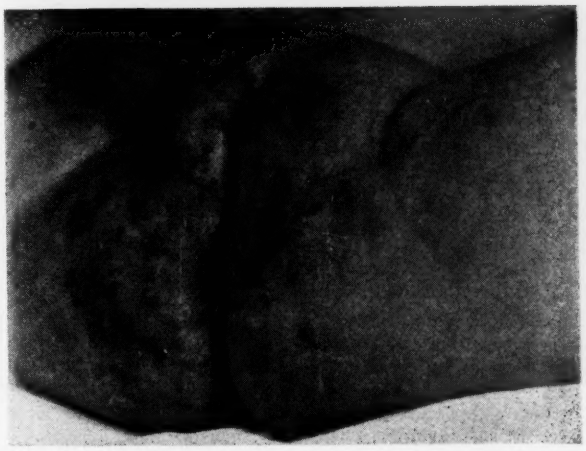

Fig. 3. Eruption presents confluence except for papules on vulva.

the spontaneous disappearance of the lesions in napkin eruptions without specific therapy; the lack of characteristic color as is often associated with syphilitic eruptions in infancy; and the negative blood serology.

Adamson[1, 2] adds vacciniform ecthyma, seborrheic dermatitis, and impetigo to Jacquet's list to be differentiated from syphilides. He also points out that many cases are misdiagnosed, and calls attention to making careful diagnoses in all cases of eruptions in infancy.

The condition has been seen in the Dermatology Department in the University Hospital, and two cases were placed upon specific therapy several years ago (because of the striking similarity of the condition to a syphilide). Two cases of "pseudo-erosive syphilide of Jacquet" are reported with photographs.

CASE REPORTS

History.—An infant, R. L., aged six months, was brought to the clinic on Jan. 26, 1933, by his aunt. He was entered on pediatrics service, and his aunt gave as the chief complaint "syphilis." She stated that for the past two months the infant has had an eruption which started on the buttocks and has extended to involve the entire napkin area. One month ago his blood Kahn was reported positive.

The patient's mother and father were reported as luetics. The aunt gave the history that the father's mind began to fail in November, 1932. His blood test at that time was reported as 4 plus. Following this it was discovered that the mother's blood Kahn was four plus, and she had been receiving anti-luetic therapy for the past five weeks. There was no history of miscarriages. The patient has one sister living and well. One child died four hours after birth, supposedly as the result of a breech delivery.

Examination: The patient was a well developed and well nourished child of six months. Scalp, eyes, and mucosæ were negative. There was no generalized lymphadenopathy. The lung fields were clear. The heart was negative. The liver and spleen were not palpable. The bones and joints presented no stigmata. The tendon reflexes were normal. The patient presented an eruption covering the entire diaper region. This presented as discrete, glass pinhead to pea sized yellowish-red indurated papules. The lesions were most numerous over the prepuce, around the anus, and on the inner surfaces of the thigh.

Dark field examinations from the lesions on the prepuce were negative, as well as from all of the other lesions examined. The blood Kahn was negative on three occasions.

Course and treatment: The eruption entirely involuted in four days' time. Calamine zinc lotion was applied locally, and the diapers were rinsed in a 1/2000 bichloride solution after being washed.

The second case was referred from the Department of Pediatrics. The baby was brought to the hospital for examination because of the recent discovery that both parents were tubercular. The physical examination was entirely negative except for the skin eruption. This presented as an eruption in the region of the perineum and over the buttocks, surrounding the genitalia and anus. This was brightly erythematous and presented many pinhead sized papules, some of which were eroded. There were two bean sized papules on the labia majora. These papules were symmetrically placed, fairly firm on palpation and definitely infiltrated. Repeated dark field examinations on these papules were negative. The baby's blood Kahn was negative. The eruption involuted under the same treatment, and in about the same time as did the eruption in the first case presented.

CONCLUSIONS

1. Two cases of "pseudo-erosive syphilide of Jacquet" are reported.
2. The close simulation of the condition with true erosive syphilides is so striking that every case of napkin eruption having erosive lesions warrants careful study, with the idea of establishing a differential diagnosis.
3. The diagnosis is made chiefly on the exclusion of a positive serology and a positive dark field examination.
4. The eruption is not necessarily limited to infants, but may occur in adults.
5. Pseudo-erosive syphilides involute rapidly with simple treatment, and they do not recur under sanitary care.

For the privilege of presenting this material and for many valuable suggestions, I am indebted to my chief, Dr. Udo J. Wile.

BIBLIOGRAPHY

1. Adamson: British Journal of Children's Diseases, 1908, 5-p., 13-24.
2. Adamson: British Journal of Dermatology, 21, 1909, p. 41-48.
3. Brenneman: American Journal of Diseases of Children, 1921, p. 38-47.
4. Cooke: American Journal of Diseases of Children, 1921-22, p. 481-492.
5. Crawford: Pennsylvania Medical Journal, 1922-23, v. 26, p. 165-173.
6. Dalous: Monatshefte Fur Praktische Dermatologie, 40, Jan.-Jun., 1905, p. 633-637.
7. Ferrand: Ann. de Derm. et de Syph., 1908, p. 193.
8. Fournier: Recherche et Diagnostic de l'Heredo-Syphilis, Tardive, p. 157, Paris, 1907, Masson and Cie.
9. Hart: Canadian Med. Jrn., 11:10-October, 1921.
10. Hodora: Monatshefte Fue Praktische Dermatologie, 26, Apr., 1898, p. 325-339.
11. Jacquet: Revue des maladies de l'enfance, Paris, 1886, p. 208. "Des erythemes papuleux fessiers posterosifs."
12. Kumer: Arch. F. Dermat. und Syph., 140:105, Apr. 29, 1922.
13. Lipschutz: Arch. F. Dermat., 131, 104, 1921.
14. Marfan: Le Nourrisson, 14-15, 1926-1927, p. 65-78.
15. Parrot: L'athrepsia, Paris, 1877. (Quoted from Jacquet, Sevestre, etc.)
16. Planner: Arch. F. Dermat. Und Syph., 167 Band 1 Heft., p. 65-73.
17. Sevestre: Gazette de Medecine et de Chirurgie, 24, 1887, p. 835-837.
18. Southworth: The Ammoniacal Diaper and its Correction. Arch. Ped., 30:730, October, 1913.
19. Zahorsky: American Journal of Diseases of Children, 1915, 10, July-Dec., p. 434-444.

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SEPTEMBER, 1934

EDITORIAL

F. C. WARNSHUIS RESIGNS

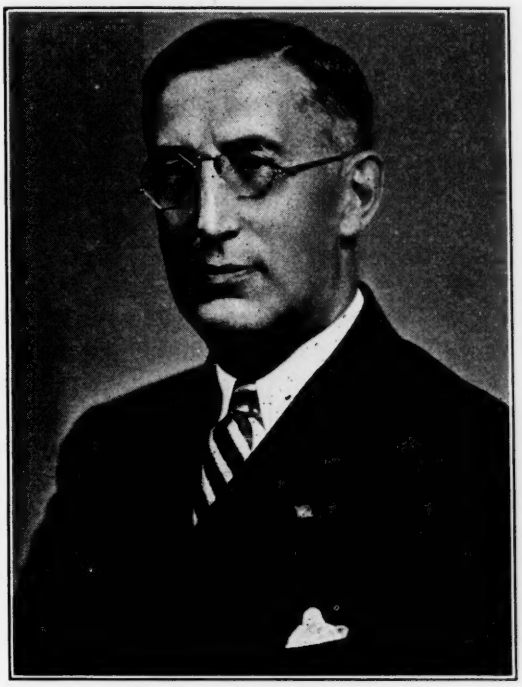
Elsewhere in this number of the JOURNAL will be found the resignation of Dr. Frederick C. Warnshuis, Secretary of the Michigan State Medical Society.

Doctor Warnshuis requested that his resignation take effect on September 1, but has kindly agreed to serve in his usual capacity during the three days of the annual meeting at Battle Creek.

The Council has directed that the Chairman of the Council, Dr. B. R. Corbus, take over the office and duties of the Secretary until the January meeting of the Council.

Doctor Warnshuis has been in practice in Michigan for the past thirty-two years. For more than twenty-one years he has served this Society as Secretary, and until the division of the office seven years ago, as Secretary-Editor. He now combines the offices of Secretary of the Society and Business Manager of THE JOURNAL. During his tenure of office we have seen the phenomenal growth of industrial centers in Michigan, with a proportionate influx of doctors and a corresponding increase in the membership of the Michigan State Medical Society. During this period the Society has kept pace with the development of organized medicine and Michigan has been a pioneer among the other states in the development of a postgraduate program especially for the doctors in the rural communities, in bringing to the laity medical information, and latterly in economic studies.

The burden of all this and many other activities has fallen largely upon the Secretary, and indeed he himself has suggested and instituted many of the activities which,



DR. FREDERICK C. WARNSHUIS, who resigns after twenty-one years as secretary of the Michigan State Medical Society

carried out successfully, have placed Michigan among the leaders of the State Societies of the country.

All of this suggests that Doctor Warnshuis has an infinite capacity for hard work, a vision of what a medical society should be, and the ability to carry through. In addition he is a thoroughly good business man. He is chiefly responsible for the satisfactory financial condition of this society. Only his unusual capacity for rapidly turning out work has made it possible for him to carry on a general surgical practice, to serve for a period as Secretary of the State Board of Registration, to act as collaborating editor of the *American Journal of Surgery*, and assistant editor of the *Bulletin of the American Medical Association*.

His book, "The Principles of Surgical Nursing," published by Saunders in 1918, is used in many of the nursing schools of the country and has been translated into at least two foreign languages.

For fifteen years he has been speaker of the House of Delegates of the American Medical Association, a position which demands not only expert knowledge of parliamentary procedure, but also executive ability of a higher order. The experience gained in this position, his contacts with the outstanding men of the profession, and his intimate knowledge of the many problems which come before the officers of the American Medical Association, have been fully utilized by him in his state work to the advantage of the profession of Michigan.

To the new field of labor as Secretary-Treasurer and Director of Public Relations of the California State Medical Association, Doctor Warnshuis brings a ripe experience and marked ability which cannot but be most advantageous to the profession of that state. They are to be congratulated. We would express our appreciation to Doctor Warnshuis for his long, faithful and efficient service, and assure him and Mrs. Warnshuis that they carry with them the best wishes of the Michigan State Medical Society to their new home in the West.

POST-GRADUATE MEDICAL INSTRUCTION

Within the past decade this has become one of the most important subjects that concerns the medical profession. The demand at the beginning of the decade just closed was not great. Those seeking graduate instruction were for the most part physicians who looked to leaving the ranks of general practice to become specialists. The only sources open to them were proprietary post-graduate medical schools which offered courses more or less limited, particularly limited for the graduate student by the magnitude of the tuition charged. Few, comparatively, went abroad to European centers, where they were at a certain disadvantage through lack of understanding a foreign language or by listening to a professor who wrestled with broken English.

Undergraduate instruction has always received the major emphasis in this country until now our medical schools are among the best in the world. Post-graduate medicine, however, has taken on a new impetus during the past six or seven years. It has become a matter which concerns the general practitioner even more than the specialist. The demand for such instruction on the part of the profession at large is steadily growing and the time may not be far distant when we will have numerous adequately endowed institutions for the purpose. According to the 1932 report of the commission on medical education in the United States, about 3,500 doctors take resident post-graduate courses in the United States and a thousand go abroad. A little over four per cent of the medical profession of this country consider it an important matter to leave their practice for systematic post-graduate study. This does not mean, however, that the majority may not endeavor to keep abreast of medical progress in other ways. New literature, periodic, in the way of medical magazines, and new books or works periodically revised are in great demand; these, together with attendance on medical meetings, constitute the means of advancement for a large number.

In many instances the demands of medical practice, as well as the economic situation, render it inconvenient for physicians to leave home without great sacrifice. For these, who are in the majority, the extension post-graduate courses have proved of inestimable value. In Michigan the coöperation of the Michigan State Medical Society and the Department of Post-Graduate Medicine at the University of Michigan is too well known to require more than mention to the profession of this state.

At a recent meeting of the Detroit teaching staff with Dr. J. D. Bruce, the director of post-graduate medicine, it was stated the latest classes were about five times as large as those of the earlier years of the movement. Every physician in the state should pursue some graduate instruction every five years; courses in the future will include those specially designed for the general practitioner. The brief intensive course has proved popular. Then there is the specialist, which will necessitate much larger periods at recognized medical centers, and third, the graduate course of three to five years duration to be taken at the University, or in other acceptable teaching centers. To meet these obligations a much enlarged program must be contemplated. Provision must be made for an enrollment of 700 to 800 every year. To distribute the teaching load and also to bring the program within easier reach of the doctor the Advisory Committee on Post-graduate Education has arranged for the opening of three more

teaching centers: Battle Creek-Kalamazoo, jointly; Flint, and Grand Rapids. The announcement of this new program will be found elsewhere in this issue of the JOURNAL and in an early number the Committee hopes to present the entire program for the coming year.

DR. GEORGE L. LEFEVRE, Muskegon
President of the Michigan State Medical Society
1933-1934

THE RIGHT OF PRIVACY

The medical practitioner dwells in the midst of alarms. At least one might conclude, after reading a paper by Dr. I. S. Trostler in the May (1934) number of *Radiology*. Dr. Trostler is personally known to every roentgenologist in Michigan as well as almost every other state. He has written extensively on the medico-legal phases of medicine so that his carefully written essays have a wider appeal than the specialty which receives his major attention.

A great deal has been written on the subject of malpractice. In fact, no opportunity has been neglected by the JOURNAL of the Michigan State Medical Society to emphasize the importance of defenses in the way of prophylaxis rather than permitting such cases to assume the position of legal issues. However, Trostler is on a different quest. His title (May physicians, medical writers, and publishers give publicity to recognizable photographs of patients without incurring liability?) suggests the answer. He has found, according to law and supreme court decisions, that five states have given the right of privacy a common law standing. These states are Georgia, Kentucky, Missouri, Kansas and Maine. Michigan, New York and Rhode Island have refused to accept the so-called right of privacy as a common law right.

Another phase presents itself and that is the possibility of abuse of so-called "privileged communications." Case history records, clinical photographs and other illustrative materials are in a sense privileged communications. As presented, case histories are anonymous. There is no infringement of privileged communications when clinical data are not identified with a definite person. In the publication of recognizable photographs the so-called *privilege* of the patient should be obtained by a signed statement granting permission for publication; or the recognizable features should be disguised if possible without obscuring the lesion to be illustrated by the photograph. When a patient submits to photography there is an implied understanding at least that the photograph may not be filed away for no eyes to behold. However, an implicit understanding and a signed statement granting permission for publication in a medical or scientific journal will at least promote peace of mind.

All this concerns the occasional writer and the publisher. There is, however, a similar situation in which any physician might be caught off his guard and that is in giving out information to various insurance companies who make inquiries about certain cases in which they are interested. Some insurance companies, aware of their position, send their claim agents already armed with properly signed waivers which the physician may retain in his files. Inquiries by telephone about patients should be accorded the greatest caution. Reports to properly constituted organizations, such as Boards of Health, should be sent in sealed envelopes and not by post-card. Trostler's paper contains this significant paragraph:

"While it may be true that the right of privacy may be somewhat slow in gaining recognition by legislation and enactment by statutes specially recognizing the same, the common law principle

brought out by the original article, 'Judge Made Law,' resulting from the growing number of decisions, is sure to bring the right of privacy to be recognized more and more as time goes on."

THE DOCTOR'S READING

It is a pleasant and harmless pastime to recommend reading matter for others. Harmless because it is up to the gentle reader to accept or to pass up the advice. Often the recommendations consist of novels or stories written by or about members of the medical profession. Again the literature may consist of something that has interested the writer himself, who, in his altruism, wishes others to share his tastes. As a matter of fact most persons who take pleasure in the printed page have well defined likes and dislikes formed at an early period in their intellectual lives.

The novel is for the rapid reader, a class to which very few physicians belong. The years of high school and college and medical school, during which time our reading is of the text-book variety, have got us into the habit of reading slowly and of stressing every sentence. There are very few who would care to spend time reading "Anthony Adverse" as painstakingly as they would a treatise on medicine or surgery. While many read for entertainment, there must also be an element of profit, if one's interest is to be sustained.

There seems no good reason why physicians should confine their reading to medical or near-medical titles. Sydenham, asked to recommend reading matter for a medical student or a young man contemplating medicine as a career, recommended "Don Quixote." The advice is sound. There are a number of the world classics one could delve in with profit. To appropriate rare Ben Jonson's estimate of Shakespeare, they are not of an age but for all time. "Don Quixote," Montaigne's Essays, Erasmus's "In Praise of Folly"; the list might be extended indefinitely.

Much as one might hesitate to do so, the writer would strongly recommend to the thoughtful consideration of the gentle reader, "Technics and Civilization" by Lewis Mumford, a book that has come from the press this year. This work has received almost universally favorable reviews. It deals with a subject of great interest, one that has influenced the present age probably more than any other. Man has been described as a *tool-using animal.* Mumford shows that the machine age, so-called, is not confined to the nineteenth or twentieth century. He traces the machine through many centuries of its history. His book is a basic work written with completeness and clarity. When looking for holiday reading "Technics and Civilization" is worth one's consideration, as a brilliant contribution to the adjustment of human life to a new era of science and technology.

OLD AGE PENSION FOR PHYSICIANS

Within the past month the editor has received two letters enclosing magazine clippings on the subject of old age pensions for physicians. One correspondent referring to the subject writes, "I think it would be very practical, providing for our retired M.D.s (after the age of sixty-five years) as well as making room for our incoming young ones." Enclosed is a clipping referring to the retirement of railroad men after thirty-five years service, or at sixty-five years of age, on sixty per cent pay based on the past ten years' earnings. The bill, it is estimated, would take out of service 300,000 of the older men, leaving room for an equal number of younger men. Then follow these two paragraphs:

> Now why can't we sawbones start the same thing, and all physicians, dentists, etc., who have had forty years of service or reached the age of sixty-five be compelled to retire from practice on a pension of say $100 a month so long as we abstain from practice, and our wives after our death receive fifty per cent of this pension under similar conditions? A rough guess by me would be the retirement of around 20,000 physicians alone to start and about 5,000 per year thereafter. Say we have 150,000 physicians alone and each paid $1.00 monthly into such a fund, that would amount to $1,800,000 annually.
>
> An agreement to be made ironclad, would require each physician to retire after forty years' practice or reaching the age of sixty-five, otherwise he would not receive his pension. That would give the young physician a better chance and the old ones a living during their declining years, along with a much-needed rest. This, in my opinion, would be much better than establishing a home for aged physicians which would take them away from their friends and family, while the pension arrangement would not restrict them to anyone place.

Five or ten years ago there was little or no thought of old age pensions. The depression has wrought changes in the mental attitude of multitudes of people. Many have had their savings of a lifetime swept

away and have been left stranded high and dry at an age when it is difficult, if not impossible, to begin all over again. One of the correspondents concludes his letter, "I will be pleased to hear from you regarding the matter in our next State JOURNAL." We believe the matter of old age pensions for physicians would be better dealt with for the present at least by written opinions from our readers in the way of short pointed letters, than if we were to commit the JOURNAL either for or against the retirement pension idea.

THE HISTORY OF URANALYSIS*

The history of uranalysis has been related closely to the development of chemistry. During the period when chemistry was alchemistry, and when all science was more or less occult and mysterious, the application of scientific methods to the examination of urine was unknown. From the beginning of the Renaissance, however, alchemistry was gradually modified and, in its place, arose chemistry. One of the applications of chemical methods to medicine was the identification of unknown constituents of the urine and the discovery of methods of urinalysis.

In urology, as in so many other fields of medicine, the first recorded references are to be found in Hippocrates and Galen. With them, urinary examination, although frequently practiced, was not developed scientifically. The method was considered of greater prognostic than diagnostic value. The work of Galen was revised and disseminated by such men as Antyllus, Oribasius, Vindicianus, Alexander of Tralles and Paul of Ægina, none of whom made original contributions to the subject. The work of Theophilus (7th century), containing descriptions of the urine, was the point of departure for all uroscopy of the Middle Ages, and his book became the authority for both Arabians and Salernitans. The Arabians as well as other physicians of the Middle Ages tended to carry uroscopy to extremes, pretending to predict pregnancy and even the sex of the child from observation of the urine. Savants and charlatans alike placed great faith in the efficacy of uroscopy, although even as early as 304, Erasistratus had condemned the practice and Bonacursius reported that he and his pupils mocked the inspectors of urine.

Throughout the Middle Ages, there seems to have been a conflict of opinion regarding the practice of uroscopy and the extent of its reliability. At one extreme were the uromancers, mere quacks imposing upon the credulity of the people; at the other extreme was the group who, aroused by the excesses of the uromancers, vehemently denounced uroscopy in any and all forms. A middle group believed that uroscopy should be used only in conjunction with other diagnostic methods. Among these was Actuarius (13th century), who was considered the last representative of Greek medicine and whose work when translated into Latin in the fifteenth century became a standard authority throughout the sixteenth and seventeenth centuries in Europe.

Despite the variance in opinion regarding uroscopy, the urinal became closely associated with the art of medicine. An amazing number of pictures dealing with medical subjects are devoted to an examination of the urine. They appear in manuscripts of the fifteenth century, in wood cuts of the sixteenth century and become noticeably more frequent in the painting of the seventeenth and eighteenth centuries. So closely connected with medicine was the urine glass in the Middle Ages that St. Damien, a patron saint of medicine living in the second century, was frequently figured with the urinal as a symbol. With the increasing disposition to discredit uroscopy during the seventeenth and eighteenth centuries, the subject became a fit one for satire. A typical example may be noted in an English engraving of 1772. A frightened girl is shown in earnest consultation with a richly-dressed uromancer, who is surrounded by all the accoutrements of his trade—urine glass, skull, mortar and pestle, books and globe. Under the cut are these words:

"'I'm vastly sick,' Miss Biddy cries,
'Yes sick indeed,' the Sage replies,
'You've made a slip, my dearest Daughter,
I see the Bantling in your water.'"

The abuses of uroscopy were slow in disappearing, but one of the principal factors leading to their final elimination was the work of Paracelsus and his followers in the sixteenth century.

The ordinary uroscopist observed the

*Eleventh historical editorial on methods and devices that have aided in the evolution of medical science.

color, consistency, transparency, smell and inclusions of the urine. He divided the urine as it appeared in the urine glass into three or four layers and noted the bubbles, suspended particles and sediment. According to empirical rules concerning the character of the urine, he made his diagnosis. Paracelsus's contribution consisted in subjecting urine to alchemical processes. He was particularly concerned with the weight and volume of the constituents of the urine. By distillation, he believed that he could split urine into its components, sulphur, mercury and salt. The distilling flask and the body were divided into equivalent sections and the position of the condensed steam on the distilling tube indicated that a corresponding region of the body was affected by disease. Absurd though the method was, it involved the technical manipulation of urine instead of simple observation. Though his pupil, Thurneissen, carried the new type of uromancy to still further extremes, other physicians became concerned about the physical properties of urine. Van Helmont and Sylvius were interested in determining the density and acidity of urine. Rhenanus and Fludd noted the taste of urine and the latter was aware that it was sometimes sweet. Jodocus Willichius observed that urine sometimes became cloudy on heating. Thomas Willis (d. 1675) likewise knew that heat sometimes precipitated "earthy" substances in the urine, which he believed consisted of water, salt, sulphur and earthy substances. In studying the urine of diabetes, he notice the honey-like taste of the urine and concluded that it was a consequence of defective kidneys.

From the time of Willis, a number of physical characteristics of urine were discovered. Pierre Borel found that blood serum coagulated like egg albumen and that urine did not. Bellini evaporated the urine and noted the character and density of the residue. He believed that the substances of the urine were first found in the blood. Dekkers (1694) found that in urine which showed precipitation following heating, the addition of acid allowed the precipitate to dissolve. On the other hand, if albumin were present, the precipitate remained. Analysis of urine was further advanced with the introduction of the litmus paper reaction by Duclos in 1680 and with the use of the hydrometer by Methe in 1727. The latter instrument was a hollow bulb partly filled with iron filings and having an empirically graduated neck. In principle, it was similar to the modern urometer.

During the eighteenth century, much was learned of the chemistry of normal urine. Brandet discovered phosphorus in the urine. Margraff (1757) showed that phosphorus occurred as phosphate of lime and later demonstrated its origin from soluble phosphates. Urea was discovered by Rouelle de Cadet in 1773 and, twenty-five years later, Cruikshank observed its crystallized state. Priestley discovered lithic (uric) acid in 1788.

Urinary stones were found by Scheele to consist of uric acid. In 1797, Wollaston found, in urinary calculi, oxalate of lime and triple phosphates. Later, he found cystic oxide (cystine), the first discovered amino acid, in stones. Ammonium ureate was also discovered in calculi about the same time.

As the end product of body reactions, urine came to be considered as an index of the normality of body processes. If a deficiency or excess of the normal components or the presence of abnormal constituents were found in the urine, an explanation was required; disease might be indicated. Cotugno rediscovered the heat and nitric acid test for albumin in the urine, and Cruikshank, in 1797, recognized that urine which coagulated on heating or after the addition of corrosive sublimate or nitric acid could be obtained from patients with dropsy. From this time until Richard Bright, in 1827, proved that albumin in the urine was indicative of dropsy or renal disease, many studies on albuminuria were made.

In the latter part of the eighteenth century, the chemistry of sugar had been investigated and it was recognized that fermentation liberated carbon dioxide gas and that alcohol and carbon dioxide were the characteristic end products of such fermentation. About this time, Poole and Dobson evaporated diabetic urine and found a fermentable viscous residue. It was shown after some study, particularly by Chevrieul, that the sugar of diabetic urine could be crystallized and that it was identical with grape sugar.

Throughout the nineteenth century, the chemistry of urine was pursued further and a number of tests for foreign substances were devised. The relationship between

blood and urine was studied and frequently simultaneous tests of the two substances were made. Blood chemistry and the analysis of urine advanced together. Berzelius and later A. E. Becquerel published quantitative chemical analyses of whole urine which showed that the essential chemistry was understood. The chemical basis for acidity in urine was discovered in the phosphate compounds. For the detection of chlorides in urine, Redtenbacher introduced the silver nitrate test. The ammoniacal fermentation of urine was observed as early as 1843. Kjeldahl, in 1883, found analytical methods of determining the nitrogen content of urine and blood. This method has provided the basis of hundreds of biochemical studies on protein metabolism. Accurate quantitative tests for uric acid (Hopkins) and oxalic acid (Salkowski) were devised later in the century.

Among the tests which were developed for foreign substances in the urine was the copper sulphate reaction for glucose by Trommer which was later modified as the Fehling test, and, still later, as the Benedict test. In 1824, the Gmelin-Teichmann test for bile pigments was devised. Marabellis, nearly forty years before, had been able to detect bile in urine by adding nitric acid. Trossier (1863) introduced the magnesium perhydrate test for bile. A urobilin test was devised by Jaffé (1869). In 1853, Teichmann introduced his test for the blood pigment hematin and indicated that it was applicable to the urine. Another blood test was devised by Heller. Bence-Jones and Heller, in the middle of the century, discovered a peculiar protein in the urine of patients with osteomalacia and devised tests for its detection. Peters (1857) noticed the characteristic apple-smell of acetone urine, and Lieben (1870) devised the iodoform test for detecting acetone bodies. Gerhard introduced a ferric chloride test for the same purpose. Boedekker (1859) introduced tests for alkaptonuria. Hippuric acid, indican, purine compounds, allantoin and hematoporphyrin were also recognized during the nineteenth century. One of the first quantitative tests for abnormal substances was that of Esbach (1874) for estimating albumin.

As early as 1656, Pierre Borel had subjected urine to microscopic examination and urine was often studied microscopically during the eighteenth and nineteenth centuries. Particular attention was directed to the nature of the crystalline substances of the urine. In addition, during the nineteenth century, organized materials were found—blood and pus cells, epithelial cells, parasites and casts. The latter were probably first seen by Vigla and Rayer, and were studied intensively by Henle, in 1844, and, later, by Rovida and by Peyer. Cylindroids were discovered in 1870 by Thomas. In the earlier examinations, the sediment settled on standing; in 1890, however, the hand centrifuge (introduced by Sternbeck) was used to throw sediment to the bottom of the specimen tube where it could be collected. About five years later, Purdy devised an electric centrifuge with tubes marked to indicate the percentage of sediment.

During the past few decades, biochemists have studied the chemistry of urine in relation to studies on nutrition and metabolism. New tests have been devised and quantitative studies on urinary components have been made. Folin, in 1905, made analyses of "normal urine" from thirty subjects who were fed a standard diet. He emphasized that quantitative tests were of little value unless the food and fluid intake were as accurately known as the substances of the urine itself.

The modern era of analysis had its inception with this concept and with the discovery of colorimetric and microchemical methods. If a chemical reaction on a small amount of urine could produce a color, the extent of the reaction could be detected by comparing the color with that of a known standard. To assist in the comparison of colored solutions, the colorimeter was devised. Since about 1918, this instrument (in any of a half dozen models) has become universally used in clinical laboratories. Folin, in 1904, devised a microchemical colorimetric test for creatinin and, during the next two decades, other quantitative microchemical methods of analysis were devised by Folin, Benedict, Van Slyke and their students. These have had a tremendous influence upon both the metabolism studies of biochemists and the tests of the clinical laboratory. A relatively recent (1928) adaptation of the urine is the Ascheim-Zondek test. When urine which contains anterior pituitary hormones (a condition associated with pregnancy) is injected into the blood of a female laboratory animal, the hormone induces ovulation in the test

animal. This reaction has become important in the diagnosis of pregnancy.

The advances of the last half century in the analysis of urine have resulted in determinations of great accuracy. Tests have been examined carefully and those which were not specific have been eliminated. Many of the chemical procedures though accurate take a great deal of time and often require large quantities of urine. The development of newer and quicker methods requiring small quantities of material is desirable. In industrial chemical analyses, the use of the spectroscope has recently made possible accurate quantitative determinations from minute amounts of material. The adaptation of such methods to the analysis of urine may become a line of further advance.

W. T. D.

OPPOSED TO THE INTERESTS OF THE DOCTOR

(New York Medical Week)

Today the age old and venerable profession is confronted by myriads of problems and changes in economics. Many physicians are now faced with a new trend in economic pressure that has been brought about by the telephone, automobile, radio and the industrial age with complicated machinery. The world-wide depression has so wounded the standard of living of the doctor that it will take many years to heal.

Some of the existing conditions which have undermined the doctor's income at present are as follows: Private business corporations use as their keyword to the doctor, when solicited, that their products are only advertised to the practicing physician. After the commercial products have been popularized through the medical man's prescriptions, the promises of these money making corporations are forgotten. Subsequently, these companies begin advertising campaigns over the radios and, by a series of advertisements in all sorts of periodicals, never forget to mention that the medical profession encourages its use. The city physician has developed a poor habit of writing patent medicines because it helps him to save time by not having to calculate the dosage of all the ingredients. Patients, however, rapidly lose confidence in such practices and soon they learn to ask for such medications over the counter of the drug store. Then we have the unscrupulous advertisers over the radios, through which channels much incorrect information is given to the public by quacks who either run their own clinics or are highly paid by commercial enterprises.

The physician, as a rule, volunteers without charge to treat deserving poor patients in dispensaries, but the hospitals, however, do not have adequate social service assistance to investigate those who do not deserve charity. Nevertheless, there is unfairness on the part of a good number of hospitals in not protecting the physician's economic status.

At times the medical profession is exploited by several small private incompetent health insurance companies which work on a basis of profit. The companies of varied sources offer doctors very small annual fees and in return large numbers of families are attended by the overworked and underpaid poor physician who usually does very inferior type of work because of the tremendous amount of petty responsibilities. Also, there are numerous societies, lodges and endless benevolent and fraternal organizations which work on the very same principles and the helpless doctors fall for such insignificant tactics. There are numerous other causes which limited space does not permit the writer to mention at this time.

There are various groups and cults taking advantage of the doctors' lack of interest in the welfare of the medical profession, and so these strings of cults are constantly exploiting humans in their misery for their financial gain. The medical societies are weak without the individual physician's interest and understanding, as there must be concerted effort on the part of the medical profession to help solve these problems rather than allow those who are out of the profession to dictate what ought to be done.

Dispensaries should be put out of business if they are of a commercial nature; which can be done by having a state law passed prohibiting commercial dispensaries from making a charge to use clinics or medicines. A specialist or general practitioner should never use patent medicines for prescribing. There are too many age old, useful drugs in the materia medica and pharmacology textbooks; students now at medical schools should be admonished against the evil practice of patent drugs. The druggists and the physicians should have mutual understandings and never infringe upon each others' fields. Cheap contract lodge practice, either on a small or large scale, is a pernicious, destructive economic force and should not be tolerated by medical societies. In short, the art of medicine has been constructed on basic principles of truth for which men in the past century have fought valiantly. We, too, must try and uphold those very fine principles and ethics which help to make our profession stand out characteristically from all the rest.

M. MARTYN KAFKA, M.D.

A SENSIBLE PRAYER

The following poem was written by one T. H. B. Webb, a British soldier killed in action in the Great War. The Great War was the occasion of a number of poems of merit; everyone will recall "In Flanders' Fields," by McCrae, a Canadian physician.

Give me a good digestion, Lord,
And also something to digest;
But when or how that something comes
I leave to Thee, Who knowest best.

Give me a healthy body, Lord:
Give me the sense to keep it so;
Also a heart that is not bored
Whatever work I have to do.

Give me a healthy mind, good Lord,
That finds the good that dodges sight,
And, seeing sin, is not appalled,
But seeks a way to put it right.

Give be a point of view, good Lord,
Let me know what it is, and why;
Don't let me worry overmuch
About the thing that's known as "I"

Give me a sense of humour, Lord,
Give me the power to see a joke;
To get some happiness from life,
And pass it on to other folk.

MICHIGAN'S DEPARTMENT OF HEALTH
C. C. SLEMONS, M.D., Dr.P.H., Commissioner
LANSING, MICHIGAN

TYPHOID IN A CIRCUS

Ringling Brothers and Barnum and Bailey Circus showed in Michigan for six days as follows: Detroit, July 22, 23 and 24; Flint, July 25; Lansing, July 26, and Kalamazoo, July 27.

On Monday, July 23, the Michigan Department of Health was notified by telephone by the Detroit City Health Department that there appeared to be a number of cases of typhoid fever among the employees of the Circus. Representatives of the State Department first visited the Circus on July 24. The Detroit Health Department had already picked out 70 cases with some elevation of temperature or other symptoms. These were all hospitalized in Detroit. Representatives of the State Department of Health including epidemiologists and engineers remained with the Circus during the rest of their schedule in Michigan.

Temperatures were taken of the entire personnel at Flint, Lansing and Kalamazoo. At Flint seven additional cases with some symptoms were picked out and returned to Detroit for hospitalization. At Lansing six other cases were picked out and hospitalized in that city. At Kalamazoo three other cases were listed as suspects and returned to Lansing for hospitalization. Thus, there were eighty-six cases hospitalized in the state, seventy-seven of which were in one hospital in Detroit and the other nine in a Lansing hospital.

At the time of taking temperatures all were carefully scrutinized who had an elevation of as much as 100°, and those in the "cook house" with temperatures of even 99° were considered. All of those found by nurses to have elevations as above were carefully gone over on the grounds by three physicians and thus the groups hospitalized were selected. Of the seventy-seven hospitalized in Detroit, the report as of July 30 indicates that forty-four were diagnosed as cases, typhoid was eliminated as a possibility in eleven, and twenty-two are still listed as suspicious, most of whom it was considered would be negative. Of the nine in Lansing, the report on the same day was six positive and three probably negative.

The U. S. Public Health Service was notified as soon as it was realized that there was an interstate problem of some magnitude. An engineer and an epidemiologist were sent and took charge of the interstate questions involved.

There is no evidence as yet upon which any conclusions can be drawn as to the source of the outbreak. Suffice it to say that the infection occurred long before the organization reached the Michigan border. This source may be a carrier yet within the organization and laboratory work is already begun in an effort to determine this. On the other hand, it may be water or possibly some food purchased by the organization in their travels.

C. D. B.

HILLSDALE COUNTY TO HAVE HEALTH DEPARTMENT

Hillsdale County is to have a health department, according to action taken by the board of supervisors. The W. K. Kellogg Foundation will sponsor the unit, the state will give the usual assistance, and office quarters will be furnished by the county.

Dr. E. G. McGavran will be director of the department, with headquarters at Hillsdale. Dr. McGavran has had experience in public health work and spent last year at the Harvard School of Public Health. Leonard Board, sanitary inspector for the Barry County Health Department, will be transferred to the Hillsdale unit when it begins functioning on September 1. Four public health nurses will complete the initial staff.

Dr. W. L. Chiang of Nanking, a Fellow of the Rockefeller Foundation, spent the first two weeks of July with the Michigan Department of Health, and also visited several county and district health departments. Dr. Chiang has been a student at the Johns Hopkins School of Hygiene. Upon his return to China he will resume his work with the Central Field Station at Nanking.

Dr. Theodore R. Meyer, Director of the Van Buren County Health Department, supported largely by the W. K. Kellogg Foundation, visited the Michigan Department of Health during the latter part of June to become better acquainted with the organization and its personnel. Dr. E. G. McGavran, who will on September 1 become Director of the Hillsdale County Health Department, also sponsored by the Kellogg Foundation, visited the Department during the last two weeks of July. These men spent several days in the field observing county health departments in operation in Michigan.

CORRESPONDENCE

AGRANULOCYTOSIS

Grand Rapids, Mich.,
July 26, 1934.

In view of the recent reports published in the *Journal of the American Medical Association,* and the exhibit at the national convention showing the relation of certain drugs to the etiology of agranulocytosis, I believe I should report a case of mine.

So far, no case has been reported in which aspirin (acetyl salicylic acid), was the suspected cause. (The Library of the American Medical Association has confirmed this in a direct communication to me.) Most investigators have indicted the barbituric acid derivatives, and some authors have said that the newer highly advertised products have been to blame, particularly affecting doctors and nurses, who have been supplied with samples of these products.

The article on the subject by Benjamin and Biederman (J. A. M. A., July 21, 1934), reports a case of a young woman who had repeated attacks of granulocytopenia, one induced by 10 grains of amidopyrine, but failure of 10 grains of acetyl salicylic acid to cause any drop in white count.

My case was as follows (August, 1931): A woman, A. W., aged fifty-eight, who had been suffering for years with chronic arthritis of the atrophic type, was taken acutely ill with a furuncle on the arm. Her temperature was 101 and she complained of generalized aching. The furuncle was lanced but no pus was found. Wet dressings were applied with no relief from the intensive pain in the arm. There was a subsequent lymphangitis in the arm and axilla, and a pharyngitis developed which simulated diphtheria so closely that anti-toxin was given, although a culture was negative. Four days after the onset of the illness, because of the patient's continued downward trend, a white count was taken which showed a total cell count of 600 with complete absence of granulocytes. The patient expired suddenly the same day that the count was made. Medication consisted of morphine and

aspirin. The history now obtained is that the patient had been taking 100 aspirin tablets a week for two years to control the pain of her arthritis. This amounted to 70 grains (acetyl salicylic acid 4.5 grams) daily. He took no medication other than the acetyl salicylic acid. This history was obtained from the daughter who bought all the medicine taken by the patient. She stated that she never bought anything but aspirin, as their finances were limited. She watched for sale prices on large quantities. I have every reason to regard her story as reliable.

Perhaps acetyl salicylic acid is less potent in bringing about this phenomenon than some of the other sedative radicles, but this case would indicate the possibility of such effect.

Sincerely yours,

PAUL W. KNISKERN, M.D.

Editor, Journal M. S. M. S.: Dr. J. H. Kellogg has just called my attention to the reference, in the article on the Calhoun County Medical Society of the August Journal, to a famous old trial of him for advertising in 1886. He says this was a persecution, charges being brought by a doctor whom he had helped through Medical School, and had employed for some time, but had to discharge for gross unprofessional conduct. These charges were repeated at the State Society and were brought befor the Judicial Council, where they were unconditionally withdrawn. Dr. Kellogg says you will find these records about a year or two following the County Society trial which occurred in 1886. Dr. Kellogg feels that this explanation is due him, because the action of the County Society did not finally clear the charge, but the State Society did. Dr. Kellogg was elected President of Calhoun County Medical Society in 1887.

WILFRED HAUGHEY, *Secretary*

Calhoun County Medical Society.

Battle Creek, August 21, 1934.

SKELETAL TRACTION IN TREATMENT OF FRACTURES OF SHAFT OF TIBIA AND FIBULA

In fractures of the shaft of the tibia and the fibula, W. K. West, Oklahoma City, has used the Kirschner wire technic in the following manner: 1. In cases in which weight traction is used in conjunction with the Braun frame, as described by Boehler, the Kirschner wire is introduced through the middle of the os calcis; for example, cases coming in several days after injury; also spiral or badly comminuted fractures. 2. In cases in which the wire is introduced through the os calcis and reduction carried out immediately, followed by the use of the long leg plaster bandage with the knee flexed. The wire and bow are incorporated in the cast. These cases are usually those in which the fractures are low in the tibia and fibula. A spinal or general anesthetic is used when a manual reduction is done at the time the wire is introduced. 3. In cases in which the fracture is in the middle or upper third. Two wires are placed, one just below the knee and the other just above the ankle. A cast is applied to the fracture site above and below; then, with traction applied, the two casts are united by connecting plaster.—*Journal A. M. A.*

OBITUARY

Dr. Roy A. Windham

Doctor Windham passed away in his home at Port Huron on Tuesday, July 17, 1934. Death came after a short illness and was due to coronary thrombosis. Surviving him are his wife, Mrs. Ada E. Windham; a son, Elwood Windham, of Detroit, a daughter, Miss Margaret Windham of Port Huron; two brothers, P. S. Windham, M.D., of Saginaw, and Mr. Alfred Windham, of Dayton, Ohio, and a sister, Miss Katherine Windham of Detroit.

Doctor Windham was born at Belle Center, Ohio, October 1, 1879, and was educated in the public schools and Ohio Wesleyan College. He served in the Spanish-American War on the Island of Porto Rico, where he remained in a hospital for some time after the close of the war as a patient. Doctor Windham graduated from the Detroit College of Medicine in 1912 and served as an interne at St. Mary's Hospital, Detroit, for a year after graduation. He entered into general practice at Port Huron in 1913 where he remained so engaged until his death.

Doctor Windham was a member of Saint Clair County, Michigan State and American Medical Associations. In 1930 he served as president of Saint Clair County Medical Society. He was a member of the staff of Port Huron Hospital.

Dr. F. L. Newman

Dr. Frank Lydston Newman of Detroit died August 23, 1934, in his home at 575 Seyburn Avenue. He was born in Norfolk, England, in 1859, the son of Dr. William John Newman. He began his medical education on the Isle of Jersey, graduating from Victoria College of St. Helier. He studied at Dieppe, France, for a while and then came to America in 1880, spending the next five years at Toronto. He then moved to Detroit and completed his training at the Detroit College of Medicine, graduating in 1886. He was a member of the Detroit Club, the Detroit Athletic Club, the Country Club of Detroit, the Detroit Boat Club, the Yondotega Club, and the Boylston Club. He was also a member of the Wayne County and Michigan State Medical Societies and the American Medical Association. Dr. Newman was a widower. In 1889 he married Miss Amy Seymour Gallon, of Lindsay, Ontario. They were the parents of two daughters, Dorothy, widow of Hal D. Caddy, who died in 1930, and Nesta, wife of Paul Weadock, Detroit attorney. Mrs. Cady lives in Winter Park, Florida.

GENERAL NEWS AND ANNOUNCEMENTS

The minutes of the Battle Creek annual meeting will be published in the November issue.

President G. L. LeFever attended the Upper Peninsula Medical Meeting in Ironwood August 15 and 16.

The Annual Conference of State Secretaries and Editors will be held at the Palmer House, Chicago, September 21 and 22.

All correspondence related to the activities and business of the Society should be addressed, after September 1, 1934, to Dr. B. R. Corbus, Acting Secretary, 313 Metz Bldg., Grand Rapids, Mich.

The Ingham County Medical Society gave a farewell dinner to Dr. F. C. Warnshuis, on August 14 in Lansing. Short addresses were made by Drs. L. G. Christian, R. L. Finch, J. Earle McIntyre, J. O'Mera and J. B. Bradley. Before responding Dr. Warnshuis was presented with a handsome leather traveling bag and he was also made an honorary member of the Society.

Preparations for the celebration of the Eight Hundredth Anniversary of the birth of Maimonides have already been launched. The event will also celebrate the Silver Jubilee of the Maimonides Medical Society. All who wish to participate will address communications to the chairman of the committee in charge of the celebration. The members of the committee are as follows: Noah E. Aronstam, M.D., chairman; Charles Lakoff, M.D.; Herbert I. Kallet, M.D.; Harry M. Kirschbaum, M.D., president of the Maimonides Medical Society. Dr. Aronstam's address is 622 Maccabees Building, Detroit, Michigan.

INVITATION TO WISCONSIN

Meeting at Green Bay on Wednesday, Thursday and Friday, September 12 to 14, the State Medical Society of Wisconsin extends a very cordial invitation to members in adjoining states vacationing in Wisconsin to be guests at its 93rd Anniversary Meeting. All sessions will be held in the Columbus Community Club, Green Bay. Morning sessions will be devoted to section meetings and clinical presentations with general sessions each afternoon. The President's Address will be given at a smoker Wednesday evening, September 12th, while Drs. Olin West, Secretary of the American Medical Association, and Dean Lewis, Baltimore, will address the annual dinner on Thursday evening.

THE DOCTOR'S LIBRARY

Acknowledgment of all books received will be made in this column and this will be deemed by us a full compensation to those sending them. A selection will be made for review, as expedient.

THE DANGEROUS AGE IN MEN. A treatise on the prostate gland. By Chester Tilton Stone, M.D. 100 pages. New York: The MacMillan Company, 1934.

The author describes the prostate gland and its functions, the changes which it undergoes with age, in a language which the intelligent layman can readily understand. It is an interesting discussion of hygiene as it pertains to middle age and later years of men.

A TEXTBOOK OF GYNECOLOGY. By Arthur Hale Curtis, M.D., Professor and Head of the Department of Obstetrics and Gynecology, Northwestern University Medical School; Chief of Staff and Chief of the Gynecological Service, Passavant Memorial Hospital, Chicago. Second Edition, reset. 493 pages with 300 original illustrations, chiefly by Tom Jones. Philadelphia and London: W. B. Saunders Company, 1934. Cloth, $6.00 net.

The specialty of Gynecology has been presented in concise form based on the author's large clinical experience. He has taken occasion in this edition to go more into detail in certain subjects at the request of some teachers of the subject. The text records the recent advances in Gynecology. The work is well adapted to the requirements of both general practitioner and student.

A PRIMER FOR DIABETIC PATIENTS. A Brief Outline of the Treatment of Diabetes with Diet and Insulin, Including Directions and Charts for the Use of Physicians in Planning Diet Prescriptions: By Russell M. Wilder, M.D., Professor and Chief of the Department of Medicine of The Mayo Foundation, University of Minnesota; Head of Section on General Metabolism, Division of Medicine, The Mayo Clinic. Fifth Edition, Reset. 172 pages. Philadelphia and London: W. B. Saunders Company, 1934. Cloth $1.75 net.

Perhaps there is no disease in the treatment of which coöperation on the part of the patient is more important than diabetes. A high degree of intelligence on the part of the patient or those responsible for his care is necessary if the best results are to be assured. This little book is an effort to supply the necessary information for coöperation with the doctor.

A COMPEND OF DISEASES OF THE SKIN. By Jay Frank Schamberg, A.B., M.D., Professor of Dermatology and Syphilology, Graduate School of Medicine, University of Pennsylvania, and Carroll S. Wright, B.S., M.D., Professor of Dermatology and Syphilology, Temple University School of Medicine. Ninth edition revised and enlarged with 129 illustrations. Philadelphia: P. Blakiston's Son and Company, Inc., 1934.

The compend has its place. While it cannot supplant the text-book it is convenient as a summary or condensed review of a medical subject. The ninth revision, besides bringing the subject matter up to date, contains material on lymphogranulomatosis and

granuloma inguinale, one a comparatively new disease and the other a pathological condition seen more frequently by the general practitioner than formerly.

MANUAL OF THE DISEASES OF THE EYE FOR STUDENTS AND GENERAL PRACTITIONERS. Charles H. May, M.D., Director and Attending Surgeon Eye Service, Bellevue Hospital, New York. Fourteenth edition revised with 376 original illustrations including 25 plates with 78 colored figures. Price $4.00, Baltimore, William Wood and Company, 1934.

What can be said in further commendation of a book that has attained its fourteenth edition? It has also undergone a number of editions in Spanish, French, Italian, Dutch, German, Japanese and Chinese. We have had the pleasure of reviewing former revisions and feel that this is an ideal textbook for the purpose for which it is intended. The volume has been brought up to date without materially increasing its size.

POSTURES AND PRACTICES DURING LABOR AMONG PRIMITIVE PEOPLES, ADAPTATIONS TO MODERN OBSTETRICS, WITH CHAPTERS ON TABOOS AND SUPERSTITIONS AND POST-PARTUM GYMNASTICS. By Julius Jarcho, M.D., F.A.C.S. 175 pp., 130 illust., Paul B. Hoeber, Inc., New York, 1934. $3.50.

This book is an anthropological study of labor. The author attempts from a study of childbirth in primitive people and the lower primates to determine the instinctive behavior of women during labor. He has also brought together a mass of information on the folklore, taboos and customs of particular groups of primitive races. Curio collectors will find the bizarre illustrations of parturient women a feature of interest. The obstetrician as well as other physicians should be interested in the comparison of modern and primitive practices during labor.

A TEXT-BOOK OF HISTOLOGY. By Alexander A. Maximow, Late Professor of Anatomy, University of Chicago; and William Bloom, Associate Professor of Anatomy, University of Chicago. Completely revised with 662 pages with 530 illustrations, some in colors. Philadelphia and London, W. B. Saunders Co., 1934. Cloth, $7.00.

The Maximow-Bloom histology text which appeared in 1930 was a notable addition to microscopic anatomy. Its exceptional illustrations, its emphasis on cell function and its concern with cytology made it distinctive. In size, however, the book proved to be too extensive for many medical school curricula, though it was commonly used as a reference. The present extensive revision has resulted in a more compact and better adapted classroom text. The text has been reduced from 833 to 662 pages and the illustrations from 604 to 530; about fifty of the illustrations are new. A selected bibliography is appended to each chapter. The superior illustrations, a histophysiological approach and a mature viewpoint are the outstanding features of the work.

THE RADIOLOGY OF BONES AND JOINTS. By James F. Brailsford, M.D., M.R.C.S. Radiological Demonstrator in Living Anatomy, The University of Birmingham, England, etc., with 310 illustrations. Baltimore: William Wood and Company, 1934. Price $9.00.

The specialty of roentgenology has become developed to such an extent as to require a library rather than a single volume to record its achievement. The present work deals with only one phase, but an important one, namely, bones and joints with the departures from the normal. As the author writes in his preface "apart from setting forth concisely an account of the bone changes seen in health and disease, it is one of the chief purposes of this book to indicate the significance of radiographical findings and further to present briefly the recent advances already recognized by x-ray departments and radiographic journals, but not yet adequately appreciated by general textbooks." Probably in no other department of medicine do good illustrations mean so much as in roentgenography. The illustrations consist, as we would expect, of reproductions of radiographs and also of line drawings from radiographs. The text is clear and the descriptions are free from verbosity. Every roentgenologist will want to add this book to his library.

ACUTE INTESTINAL OBSTRUCTION. Monroe A. McIver, M.D., Surgeon-in-Chief, Navy Imogene Bassett Hospital, Cooperstown, N. Y. 62 illustrations. Published by Paul B. Hoeber, Inc., New York, N. Y.

The subject matter for this book is a compilation of a series of articles which have appeared in *The American Journal of Surgery* with new material and references incorporated which brings the work up to date. Acute intestinal obstruction is a serious disease. The mortality is high, and has not been materially lowered during the past thirty years. It is associated with almost every phase of abdominal surgery. Moreover, with the growing number of laparotomies, the disease is of increasing importance as a post-operative complication, not only during convalescence but also as a late result of operative procedures. Such a situation obviously demands thoughtful consideration, and is a challenge to the profession. There are three major divisions: Part 1, which gives a general picture of the disease; Part 2, which deals with points in diagnosis and methods of treatment; and Part 3, which discusses the experimental work that has been carried out to determine the cause of death from intestinal obstruction. In Chapter 16, the author gives some unusual interpretations of the use of morphine in the obstructive cases. The whole volume is written in an interesting manner, paying considerable attention to treatment. The illustrations of the subject matter are quite sufficient to give a comprehensive understanding.